

DEPARTMENT OF AGRICULTURE
DAIRY AND COLD STORAGE COMMISSIONER'S BRANCH
OTTAWA, CANADA

CO-OPERATION AND FRUIT GROWING

A. McNEILL,

Chief, Fruit Division.

BULLETIN NO. 38—DAIRY AND COLD STORAGE
COMMISSIONER'S SERIES

Published by direction of the Hon. Martin Murphy, Minister of Agriculture,
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FEBRUARY, 1913

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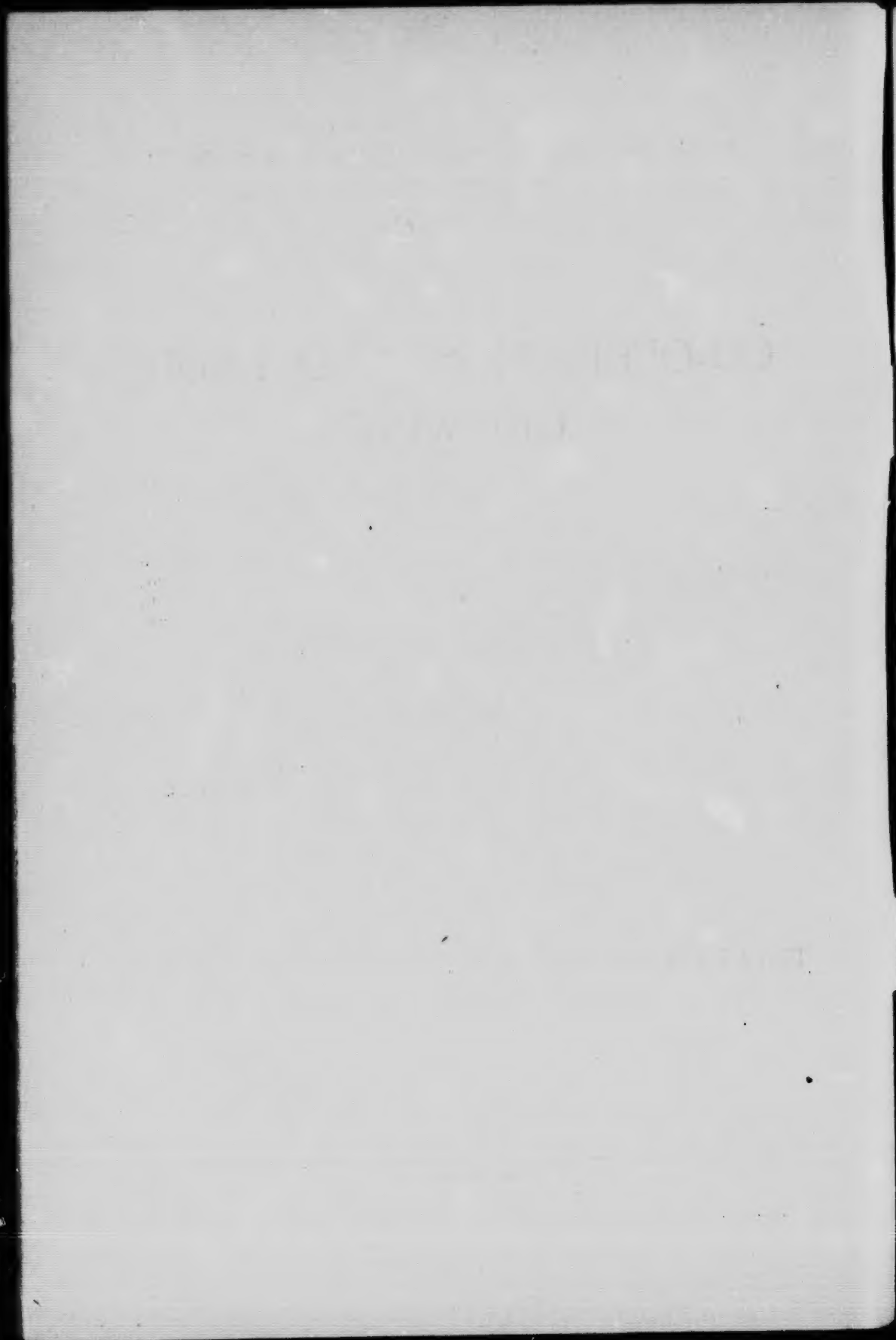
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LETTER OF TRANSMITTAL.

OTTAWA, February 21, 1913.

To the Honourable

The Minister of Agriculture.

SIR.—I beg to submit for your approval the manuscript for a new bulletin on 'Co-operation and Fruit Growing,' by A. McNeill, Chief of the Fruit Division in this Branch. Bulletin 18, 'Co-operation in the Marketing of Apples,' published in 1907, is now out of print. The proposed bulletin is to some extent a revision of Bulletin 18, but it also contains much new matter relating to the subject.

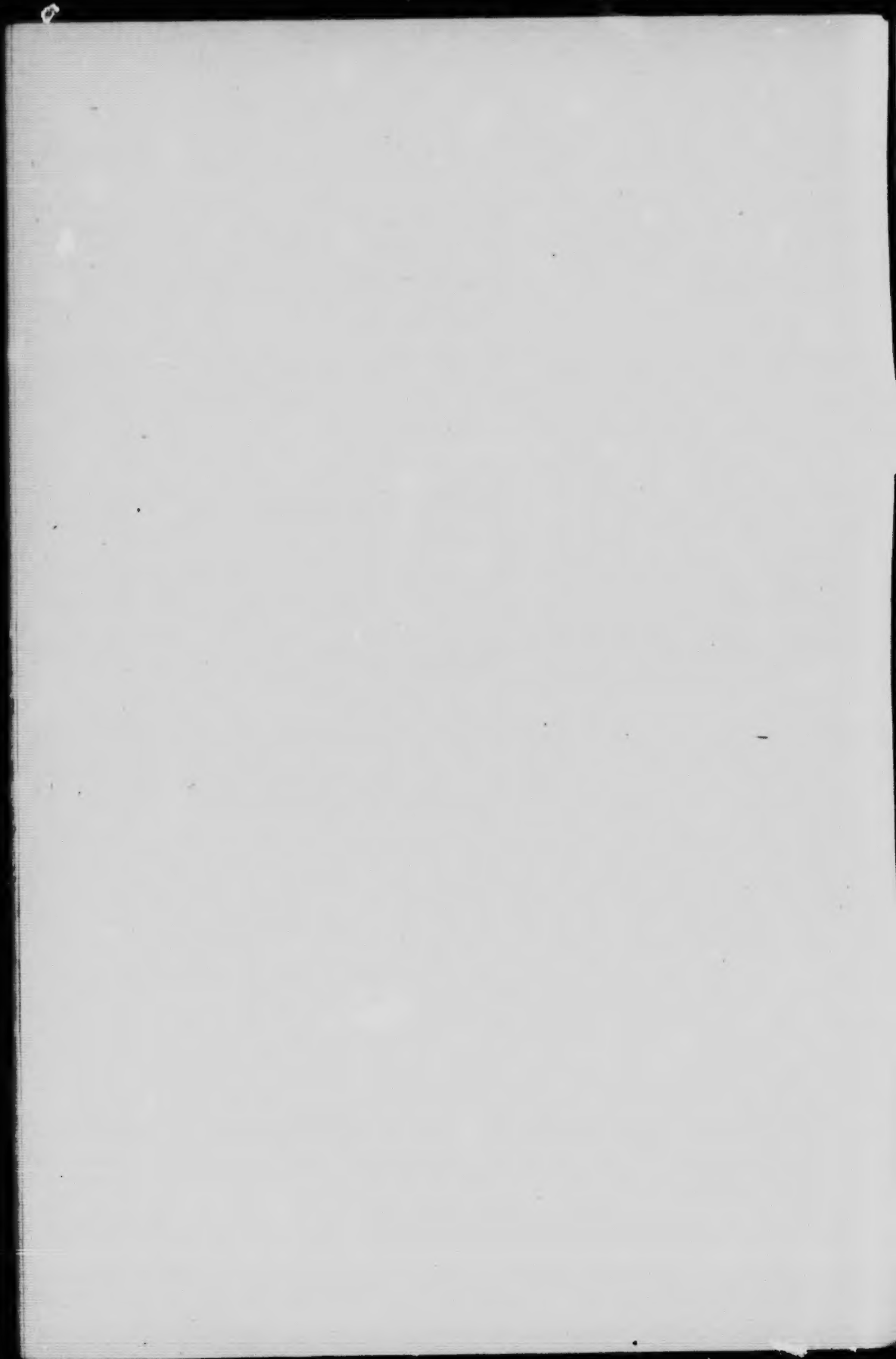
I have the honour to recommend that it be published for distribution as Bulletin 38 of the Dairy and Cold Storage Series.

I have the honour to be, sir,

Your obedient servant,

J. A. RUDDICK,

Dairy and Cold Storage Commissioner.



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CO-OPERATION AND FRUIT GROWING.

By A. McNeill.

INTRODUCTORY NOTES.

Co-operation, in all lines of agricultural production and distribution, has developed rapidly during the last few years in nearly all the countries of Europe. The development is less marked in America, but even in America certain lines of co-operation have reached enormous proportions, such, for instance, as the co-operative selling associations for citrous fruits in California. Agricultural productive co-operation, too, has made great progress in the States of Wisconsin and Minnesota. In other parts of the United States co-operative selling associations have become fairly common and have worked out principles that can be adopted now with confidence.

In recent years there have been some remarkable developments of co-operative effort among Canadian farmers. The Northwest Grain Growers' Association bids fair to revolutionize the selling of wheat in the northwest. Distributive co-operative stores are being established throughout the Dominion, and so numerous have they become lately that it has been found desirable and possible to organize a Dominion Union of Co-operative Associations that will exercise a great influence on the distributive side of the movement.

Not less important has been the development of apple selling associations within the last few years, and it is with these that this bulletin is particularly concerned. But it is necessary to emphasize that the general principles are the same and it would be impossible, even if it were deemed expedient, to attempt to disassociate the co-operative apple selling movement in Canada from the co-operative movement in all agricultural lines in many countries. The history of co-operative apple selling associations in our own country is sufficiently interesting to demand special attention and it appears to be the line along which co-operative effort can be most easily introduced in many important sections of the country.

To outline in more or less detail the principles of co-operation, the more desirable methods to adopt in putting these principles into practice, and the objects to be gained by their adoption, is the purpose of this bulletin. If its perusal tends to encourage more economical methods of production and distribution, and a more equitable division of the proceeds from sales, the object of the bulletin will have been attained.

APPLE GROWING IN CANADA.

The apple industry of Canada originated in the orchards of the earliest settlers, planted primarily for their own use. These orchards, planted for this purpose on a somewhat generous scale, supplied not only the needs of the family, but also those of the nearby markets. So prolific were they that even when local demands were met there was still a surplus. This formed the nucleus of the long distance and export trade. Merchants and the more enterprising growers began to ship a few barrels to the markets of Great Britain and found that the fruit was acceptable and the profits large. This created somewhat of a boom in orchard planting and developed the long distance and export trade to its present proportions.

The handling of the crop naturally fell into the hands of dealers who very quickly monopolized the trade connections, to such an extent that they could practically dictate the remuneration returned to the growers, and in this condition the trade has continued almost to the present time.

Of course, the form in which this monopoly existed was in a measure dictated by slightly different conditions. The net results, however, were the same. The grower was in the hands of the middleman and was powerless to secure a fair proportion of the prices which his fruit brought in the ultimate market. In Nova Scotia the dealers were usually associated with some strong English firm who made advances on the apples in their possession and who eventually built warehouses at the points of production in order to secure a better hold upon the fruit. Not content with this, certain dealers often secured control of the transportation facilities, so that rival shippers and independent growers had great difficulty in moving their fruit. Some of the shrewdest men among these growers, too, were employed to act as soliciting agents, and by these devices the dealers secured almost absolute control of the trade.

In Ontario, apple orchards were not so concentrated, and it was somewhat more difficult to secure such control. However, the distance from the markets and the inability of the English firms to become acquainted with the local conditions, enabled a comparatively few men to pose as exporters. There grew up a large army of local buyers more or less under the control of the exporters, and at times the competition among these kept prices fairly well up to a point corresponding with the price in the foreign market. In later years the competition between different buyers became merely nominal and the business in Ontario was so shrewdly organized that the apple grower got just a little more for his fruit than his actual expenses. For this reason there was no incentive to increase the orchard area. In fact after this régime had more or less complete control, the orchard area began to fall off most seriously, and it was no uncommon thing in the decade beginning 1890 to see splendid orchards chopped down for firewood. It was under these circumstances that the co-operative movement began. It was adopted by Ontario as a sort of last resort. In this it follows the history of co-operation in every land and in connection with every industry. It is seldom indeed that it has been adopted during good times or while industries were flourishing. But though adopted with little hope it has never failed to improve conditions.

Nova Scotia Export Trade.—The development of the apple trade in Nova Scotia is similar to that in Ontario and it began about the same time. About 1870 shipments from Nova Scotia to London were in large enough cargoes to attract attention. Many of these apples were sent in sailing vessels from local ports and, as might be expected, the condition on arrival was variable. There was no provision for ventilation, and even if there had been none of those delays so common to sailing vessels, it would have been a difficult matter to have landed apples in London to do justice to Nova Scotia. Steamers sailing from Boston were then induced to come to Halifax for a part cargo of apples, and this helped the situation considerably. Later, of course, Halifax secured a direct line of steamers that has served the needs of the trade more or less satisfactorily up to the present time. The exports in 1880 were only 24,000 barrels, and in 1886, 177,500 barrels. The phenomenal crop of 1896 gave a surplus of something like 500,000 barrels and the 1911 crop gave an output for export and long distance shipments of 1,500,000 barrels, representing a total yield of about 2,000,000 barrels. Briefly this is the history of the apple industry, both in Ontario and Nova Scotia, the only provinces that have yielded a large surplus for export.

Recent Developments.—The phenomenal increase in the crop of Nova Scotia has been the result partly of increased plantings, but partly also of the better care which is taken of the orchards.

The increase in the acreage of new orchards in Ontario in the last ten years has probably been as great as in Nova Scotia, but these new orchards are not concentrated to the same extent. Nevertheless, they are by no means as widely distributed as the older orchards. As a matter of fact the decrease in the number of trees in the older smaller orchards in this province has been quite equal to the increase in the number of new trees planted in larger areas and, perhaps, in more favourable situations. Modern orchard culture is also the rule in these new Ontario orchards. The outcome in both Nova Scotia and Ontario is a very large increase in the exportable surplus.

British Columbia has been planting very rapidly of late years but the 1912 crop was the first that seriously affected the market outside the province.

Commercial Orchards.—Recently there has been a marked change with reference to apple growing, brought about for the most part by co-operation. The older home orchards are ceasing to be profitable. It is doubtful, indeed, whether orcharding can be recommended at all, unless it be for home use or for the local market, except where co-operative methods are used. Under the stimulus of such methods, growers are turning their attention to orcharding as a main source of income, where formerly it was only a side-line. The effect is to group the orchards in particular districts and to increase their size. It means, too, the application of business methods to this branch of horticulture. In modern phrase, orcharding is becoming 'commercialized' in Canada. The change is now taking place and we see the extraordinary spectacle of men in one part of a county receiving \$2 per barrel for apples, while in the next township apples are being allowed to rot under the trees. The old order is passing away and the new is not yet thoroughly established.

A Plea for the Small Orchard.—At the present time the small grower, in neighbourhoods where orcharding is not a special feature, would appear to have received a setback. A little more experience will show these small growers that it is quite possible, even in districts where apples are not a specialty, to organize co-operative selling associations so as to dispose of the fruit without difficulty and at a fair profit. It must be admitted that of late years the small orchard, as an adjunct to the farm, has not been remunerative. All attempts at growing four, five or half a dozen trees, which would be sufficient to supply the needs of the home, have failed; the trees are not numerous enough to receive proper care in the busy life of the ordinary mixed farm, and very quickly succumb to general neglect. Apparently the smallest area that can be recommended in general practice is five acres, and there is no reason why, with co-operative methods, there should not be a five-acre orchard on every farm in the apple districts of Canada. This would not interfere seriously with the larger interests of the farm, and yet would be sufficient to make it worth while to secure proper implements, spray at the right time and pay some attention to marketing. With the passing of these small orchards would go many of the pleasant recollections of farm life. The old orchard is the memory that lingers longest and links us most closely with the land. It would be worth while, merely as a partial solution of the depopulation problem, to institute a propaganda for a five-acre orchard on every farm.

THE DEVELOPMENT OF CO-OPERATION.

So far as Canadian fruit growers are concerned, they benefitted comparatively little by the experience of co-operators in other lands, and co-operation with them is decidedly a native growth influenced little or not at all by the theories and practices of older countries. The result has been that our growers have looked upon co-operation largely from the material side and have counted its benefits in proportion to the direct increase in returns for fruit. Naturally, too, the by-laws and regulations under which the first associations operated did not correspond to any set principles similar to those evolved by the co-operative societies in other lands.

The fact that the independent Canadian evolution of co-operation does not differ materially in methods from co-operation as practiced in the older lands, should inspire confidence in Canadians to accept more readily the teachings of pioneers in this system of conducting trade. Everyone who aspires to be useful in a co-operative way should acquaint himself with the history of co-operation in the older lands. Particularly valuable is the history of co-operation in Germany and Denmark, but scarcely less so are the recent developments in agricultural co-operation in Ireland under the leadership of Sir Horace Plunkett. For general principles nothing can be better than the history of distributive co-operation in Great Britain.

I emphasize the importance of reading co-operative history for the reason that not all the Canadian apple selling associations have been successful. A careful study of the causes of their failure will show that in every case there has been a violation of some of the principles that are now regarded by those who have studied the subject, as fundamental to co-operation.

Perhaps the greatest mistake which Canadian fruit growers have made in reference to co-operation is to regard it as an isolated movement for the purpose of securing them a few dollars more than they would otherwise obtain. In its broader outlook co-operation is a friendly society or a benefit association. European co-operators have recognized this and have taken for their motto, 'Each for all, and all for each.' Taking this view, co-operation implies not only getting something that you did not have before, but also giving something or helping some one whom you could not otherwise help, and the giving or helping end is quite as important as the receiving end.

COMPETITION VERSUS CO-OPERATION.

Few Canadian co-operators recognize that co-operation is an entirely new method of doing business. It is not merely a modification of an older method but something founded upon a different if not antagonistic principle. The prevailing system of marketing is founded upon competition, the practical motto of which is, 'Every man for himself.' The natural result of this is that a few individuals receive most of the prizes. C. R. Fay in *Co-operation at Home and Abroad* defines a co-operative society as 'an association for the purpose of joint trading originating among the weak and conducted always in an unselfish spirit, on such terms that all who are prepared to assume the duties of membership may share in its rewards in proportion to the degree in which they make use of their association.'

It will be necessary, in the course of what follows, to point out some of the evils of the ordinary competitive system in connection with the apple industry, and in doing so it must be definitely understood that individual growers and buyers cannot be held altogether responsible for the disabilities under which the apple industry undoubtedly labours. It is the system under which they are working that is most at fault. It offers at every turn incentives to untruthfulness and misrepresentation. It places in the hands of unscrupulous growers and unscrupulous buyers an effective instrument of fraud and renders it more difficult for honest men to conduct a legitimate business. Indeed this fraud in the apple business became so serious in Canada that it necessitated the passing of the Fruit Marks Act, now merged in the Inspection and Sale Act, which has done much to correct some of the grosser evils.

Waste.—Even if there were no misrepresentation between the buyer and the grower, yet from the conditions under which the buyer works he is obliged to pick and pack the fruit and bring it to market at a much greater expense than that incurred by co-operative methods. Under the present wasteful competitive system it is not too much to say that from 50 to 75 cents is added, on the average, to the cost

of every barrel of apples before it leaves the shipping station. The dealers are not particularly anxious to change this if they could, so long as these additional charges are uniform in the whole trade, since each is in as good a position as his competitor, and all may shift the burden upon either the producer or the consumer.

The want of economy does not stop at the shipping station. If the grower attempts to ship to the ultimate market on his own account, the competitive system of marketing accumulates upon the fruit a number of charges, some of them perfectly legitimate, others quite unnecessary, or, if necessary, exorbitant. But whether these charges are right or wrong, the individual shipper is helpless. He has no way of investigating their correctness.

The Remedy.—Co-operative methods substitute for this a more economical method of picking, packing and marketing. They also take away most of the incentives to fraudulent packing and marking. The economies that can be effected will be noted more particularly in what follows. Here it is sufficient to direct attention to the fact that this economy does not consist in supplanting one person by another to whom a lower fee or less wages is paid. It is a method whereby one man without undue exertion can do the work that is now being done by two or three. So, too, co-operative methods do not propose to make men honest by law or rule. They simply take away the present incentives to dishonesty.

FUNCTIONS OF CO-OPERATION.

The aims of co-operation, as applied to the fruit industry, are:—

- (a) To bring fruit products as directly as possible from the producer to the consumer.
- (b) To encourage the best methods of production.
- (c) To encourage thrift in the fruit grower, and economy, intelligence, enterprise and honesty in the packing, grading and marketing of fruit.
- (d) To make it possible for a number of small growers to establish a commercial standing that will be a guarantee for grade marks or contracts.
- (e) To act as a credit organization to make advances on products in the process of being sold.

ETHICAL PRINCIPLES INVOLVED.

"There is an intangible something that is demanded by co-operation as essential,"
 "and this is evidenced by feelings of fellowship, mutual devotion and faithfulness."
 "Co-operation does not exist enduringly without these. G. K. Holmes, United"
 "States Department of Agriculture, Report No. 98."

Confidence in Leaders.—Co-operation is founded upon mutual confidence, loyalty to principle and unselfishness in action. In an association the members must have confidence in their leaders and in their fellow workers. Without this confidence no progress can be made; no other virtues will compensate for its absence. Such confidence is not the blind faith that follows without reason, nor yet is it the cold and calculating sureness that comes from perfect knowledge. The confidence which one has in leaders and in his fellow workers in this democratic age, does not dispense with all the mechanism of personal oversight and close auditing. But it does consist in unreservedly placing our interests in the care of others who are working with us and whom we have no good reason to suspect of fraudulent and selfish intent. The millennium is not yet come, but it is safe to say that nine-tenths of the suspicions of the average man are without good foundation. The criminal code in certain countries is founded upon the principle that an accused man is guilty until he

proves himself innocent. The British courts of justice consider a man innocent until he is proved guilty. Applying this principle to the working of co-operative associations, we should consider our fellow members as worthy of our confidence until it is proved otherwise by unimpeachable evidence.

Loyalty.—A co-operative society cannot be fully successful simply because a few of the local growers are keenly interested. It is essential that each member of a co-operative association should bear in mind that the success or failure of the organization depends upon the combined efforts of its members, in giving every possible support to the movement. The ultimate success of co-operation depends largely upon the cheerful optimism and enthusiastic loyalty of the association members. It is assumed that the leaders of the movement in any section are men of greater executive ability and better training than the average grower. Such men are capable of doing many things well. But at the same time every member must have his mind permeated with the thought that unless he gives every possible assistance the efforts of the leaders are necessarily limited.

Given good feeling among the growers, earnest endeavour on the part of each member, and enthusiastic and well trained leaders, the success of the movement is assured.

Unselfishness.—Selfishness is a relic of a primitive civilization. Enough remains however, to make it a disturbing element in everyday life. One of the main charms of modern social life is unselfishness, but the ordinary methods of business appear to have no place for it. Co-operation, on the other hand, endeavours to eliminate selfishness and its success depends largely upon the extent to which this is accomplished. No co-operative association can possibly succeed if the members are determined to act upon the ethics of ordinary business methods. If the few who have power in an association exercise that power for selfish ends, then there can be no real co-operation; and though rules and regulations may be carefully drawn up to offer no temptation to the selfishly inclined, yet after all is said and done we must, in a large measure rely upon the broad moral education of the members rather than upon direct and distinct prohibition. Have by-laws and regulations by all means, but it should be understood among the members that there is a higher code of morality than can possibly be embodied in these.

It is for this reason that the co-operative methods limit the dividends that may be paid to capital and exclude share voting. In ordinary joint stock companies, the influence and power is proportional to the money invested, so that the rich become richer by appropriating selfishly, through the power of money, the fruits of the labours of others, the unearned increment of values created by society, and the natural resources that in justice should be shared in due proportion by everyone. Co-operation distributes wealth in proportion to the just earning of each worker, prevents the accumulation of large profits, and shares unselfishly all natural resources.

LEADERSHIP.

The apple growers of Canada are ready for co-operation. They are far from being fully informed upon the far-reaching effects of the co-operative movement and far indeed from feeling with full force the spirit which should animate true co-operators. Nevertheless, they are alive to the vast significance of the movement in other countries, and they are also impressed with the success which has so far attended the co-operative marketing of apples in our own country. Those who are closest in touch with the Canadian fruit growers realize that what is needed most at the present moment is wise leadership in each locality. A few men at least in each neighbourhood are fairly well grounded in the social problems that affect agriculture. In every agricultural

district there is a wealth of knowledge and public spirit unorganized, which might be applied under wise guidance to the problems of that particular locality. It is not so much trade investigators as sympathetic leaders that are needed and the importance of these leaders at the present juncture can hardly be over-estimated. There may be fifty farmers in a neighbourhood, all of whom would make excellent members of a co-operative society, not as blind followers of a leader, but as intelligent co-workers, yet among those fifty it is very often impossible to find a single man possessing the ability and combination of virtues that go to make up the qualifications and character of the successful leader. Those who have the co-operative movement most at heart cannot do better than organize some means whereby leaders may be trained to help in this good work.

CO-OPERATION IN PRACTICE.

Management and Control.—The principles of co-operation are few and extremely simple. Nevertheless, co-operators experimented for many years before evolving them and acting on them with confidence. Perhaps the main reasons for this are their simplicity and the fact that they are fundamentally opposed to ordinary business methods.

Ordinary commercial associations, whether they are partnerships or joint stock companies, are formed for the purpose of securing dividends from the partnership or company. Co-operative associations are formed, not for the purpose of securing dividends through the association, but for the purpose of benefitting the industry.

Joint stock companies, banks, loan associations and business partnerships are essentially autocratic. In these institutions the great majority of the shareholders take little or no part in the association. Co-operative associations are essentially democratic. The management is in the hands of the members.

In ordinary business associations voting is upon a money basis. and the men with the largest moneyed interest control the affairs of the association. In co-operative associations each member has a vote and no member more than one vote. To still further guard against the concentration of power in the hands of one man or a few men, no proxies are allowed.

In commercial or industrial concerns no limit is placed upon the amount of remuneration received by capital, and capital is employed for the sole purpose of securing this remuneration in the form of dividends. In co-operative associations the amount that is earned by capital is as strictly limited and as definitely stated before it is engaged as the wages of employees, and capital is used not for the purpose of securing dividends, but for the purpose of carrying on the business.

In competitive business, capital is master; in co-operative associations it is the servant.

Division of Profits.—Nothing marks the difference between co-operative associations and joint stock companies so clearly as the division of profits. In an ordinary business association, if it should appear, as the result of the year's business, that there was a surplus of \$10,000 after paying all just debts and making a proper allowance for depreciation of property, a distribution would take place in direct proportion to the capital invested and the amount which each member would receive would be announced as a percentage on the stock which he held. It would be called a 6, 7, 8 or 10 per cent dividend. In a co-operative association the mode of distributing this \$10,000 would be altogether different. An account would be kept of the use each member made of the association. This would be represented in the case of an apple association by the quantity of fruit sold for him by the association.

To make this matter clearer let us take the case of three members of an apple-selling joint stock company. Mr. A, a well-wisher of the association, perhaps, but a pure investor, puts in a thousand dollars of capital. Mr. B, an investor with a small orchard yielding 200 barrels, also invests a thousand dollars. Mr. C, having a large

orchard yielding 2,000 barrels has only enough ready money to justify him putting in a hundred dollars capital. Let us suppose also that capital can be obtained at 5 per cent and that the association apples net \$2 per barrel. Under these circumstances A would receive \$50 as dividend on his capital; B would receive \$50 dividend on his capital, and \$400 on his apples, or \$450 in all; C would receive for capital dividends \$5 and for his apples \$4,000 or \$4,005 in all.

Now, it can be understood that with such men as Mr. A and Mr. B in the association, the directors might very easily put forward arguments that capital should receive 10 per cent, and as they are voting by shares it might require very few men thinking that way to force this decision on the company and yet keep the price of apples above that of ordinary competitive buyers. Let us suppose that this policy has been adopted and that the increase on capital dividends reduces the returns for apples to \$1.75 per barrel. In all probability this could be done and yet the \$1.75 would be higher than the price of apples obtained by growers outside the association. The distribution now would be quite different. Mr. A would receive \$100 dividend on his capital or double his former receipts; Mr. B would receive \$100 on his capital, but only \$350 for his apples. His total returns, however, would still be the same, \$450. Mr. C, being practically a grower only, would receive \$5 more on his stock, but \$500 less for his apples.

The pure capitalist has his income doubled. The income of the small orchard capitalist remains the same, but the producer suffers a loss of \$495. And it was the apples owned by him and those who are similarly situated that made it possible to have a dividend at all. If the machinery of incorporation enables a few men to appropriate all the advantages of co-operation, a very grave injustice is done to the industry.

The above example is purely hypothetical, but even more striking cases might be given from the history of several defunct fruit associations in Ontario, which for obvious reasons are not mentioned.

It is evident that grave dangers lurk in the joint stock principle when applied to farmers' organizations. The joint stock principle is quite suitable to a company of investors, but to force it on a group of producers often works a great hardship.

THE PRESENT SYSTEM OF PACKING AND SELLING.

The usual methods of selling apples may be classed for criticism under four heads, namely:

- 1st. The grower of the fruit may pick, pack and sell on his own account or through a commission merchant.
- 2nd. The grower sells by the barrel, picking the fruit, the buyer doing the grading and packing.
- 3rd. The grower sells by the barrel on the tree, the buyer doing the picking, grading and packing.
- 4th. The grower sells by the lump, the buyer, of course, picking, packing and grading the fruit.

The first method does not enable a sufficient quantity of fruit to be gathered together to impress the market. The expense of securing a suitable market and the impossibility of a single grower being sure that he has reached the best market, renders this method impracticable except for local markets.

The second and third methods permit a larger quantity of fruit being gathered under one brand with some degree of uniformity, but the degree of uniformity is not sufficient to constitute a brand and the cost of harvesting and reaching the market is excessive. Of course this cost must ultimately be borne by the grower.

Selling by the barrel, where the buyer does the packing and grading, is seldom satisfactory to either the buyer or the grower. It is almost impossible to so fix standards before the packing is done that there will not be a large margin for misunder-

standing between the buyer and the grower. It not infrequently happens that the buyer will set a very high standard for his No. 1's and 2's, with the result that the grower finds himself with a large number of culls on hand, and comparatively few No. 1's and No. 2's. Usually these culls, no matter how good they may be, find a very poor market, if they are not entirely wasted. The presumption is, of course, that these extra grades are shipped by the buyer to special customers, where they realize a price much above the average.

On the other hand, the buyers are often deceived by their own workmen. These workmen may be personal friends of the grower or the grower may, and often does, cajole the workman having charge of the packing to put in a poorer quality of fruit than the grade calls for. The buyer having confidence in his men frequently ships these without inspection, and suffers the consequence in having to make a rebate to his customer or it may be to pay a fine under the Inspection and Sale Act. If the grower wishes to sell by the barrel the more satisfactory way is for him to offer the apples for sale in barrels graded by himself.

The fourth method most in vogue in Ontario, has little to recommend it. The buyer is of necessity better informed than the grower to estimate the quantity of fruit on the trees, because his faculties have been sharpened by years of experience in buying orchards of different varieties and at different times. The grower, therefore, is not on equal terms with the buyer.

Unfortunately, there is no profitable outlet, as the trade is at present organized, for low grade apples, and the temptation to work off as many as possible of these in 'lump' bought orchards is often too strong to be resisted. The Dominion Fruit Inspectors now regard the fact that apples were packed in a 'lump' bought orchard as sufficient reason for examining them, and experience shows that there is an abnormal number of fraudulently packed apples from this source.

SELLING THROUGH COMMISSION AGENTS.

The selling methods so far considered have all presumed that the fruit was sold to a buyer who came to the fruit growers. Ontario apples are sold almost exclusively in this way. There are a few, however, especially of the larger growers, who consign their fruit to commission merchants in distant cities. In Nova Scotia it has been much more common for individual growers to consign on commission. A small army of agents could always be found there, most of them representing English commission merchants. Selling on commission has proved a most unsatisfactory way of disposing of the fruit crop, but until co-operative organization is much more complete than it is at the present time, selling on commission will be a necessary evil.

The perishable nature of fruit and the uncertainty in the quality and quantity of it until it is packed for market, makes it very difficult for individual growers to sell except by consignment. Consigning fruit is a necessary evil as the fruit trade is now organized. One of the objects of co-operation is to do away to as great an extent as possible with this method of selling. It is perfectly true that there are many reputable commission merchants whose record for fair dealing is unimpeachable, but it is absolutely impossible for the individual fruit grower to determine whether or not he has been fairly dealt with. He cannot audit the accounts nor follow his fruit to the consumer, and practically he is obliged to take the word of the commission man for all facts connected with the sale of his fruit. He simply places the fruit in the hands of his commission agent unconditionally, and it would be strange indeed if some commission men did not yield to the temptation and send returns below those received for the fruit.

It is not a question of the financial standing of the commission merchant. His standing may be high, but if he wishes to be dishonest he need not want for a plausible excuse to return almost any sum to the grower.

SHORTCOMINGS OF INDIVIDUAL GROWERS.

But it must not be supposed that all the fraud under non-co-operative methods is practised by the commission men. Unfortunately many growers are as fraudulently inclined in their methods of packing and doing business as it is possible to be. Well disposed merchants from the Northwest have time and again attempted to deal directly with growers, and there are many cases where such arrangements have been fairly satisfactory for a time. Apart from all fraudulent intent, it is extremely difficult for even the largest grower to supply the needs of even a small retail business every year, and with all the varieties required. Hence such connections are irregular and have never proved permanently satisfactory to either dealer or grower. But had there been perfect honesty on the part of the growers, even this irregular trade could have been a great advance on the ordinary modes of selling. Unfortunately, however, the dealers found a great many growers whose pack could not be trusted. It was simply impossible to investigate the character of every man from whom apples were bought, and after the fraud was discovered it was usually impossible to get any redress.

Co-operation among the growers of apples for the purpose of selling will remedy most of these evils, but they could be almost completely wiped out if there was co-operation among the consumers as well as among the growers of farm produce.

CO-OPERATION AND THE FRUIT MERCHANT

Co-operative associations, therefore, do not aim to sell to the individual consumer. The process is too slow. But all good co-operators hope that the time will come when the consumers will be so organized that the producers' apple selling associations can deal directly with the consumers' distributing associations. But this ideal condition of things is yet far in the future, and until the consumers are better organized, the co-operative apple selling associations appreciate the fact that they cannot come into contact with consumers in large numbers except through the fruit merchant and retailer.

CO-OPERATIVE ASSOCIATIONS AND NEW MARKETS.

It may be well here to emphasize the fact that private dealers do not as a rule develop new markets. This development requires time and money. Both of these the fruit merchants are loth to give, and in most cases it must be admitted that it is seldom an individual merchant can hope to reap an adequate reward for a large outlay in the development of new markets. This work properly belongs to the fruit growers, with what aid and assistance they can get from the consumers concerned. No better use can be made of a surplus stock than applying it to the development of new markets. It is a common experience that after a year of extraordinary production in fruit and consequent low prices, the demand in many quarters has increased. Market development is the work of fruit growers as a whole, and thus falls under the class of work that can be done by a union of co-operative associations better than in any other way.

This is not merely a matter of theory. The best organized selling co-operative associations have recognized the development of markets as a most important part of their work, and large quantities of surplus fruit are frequently used for this purpose by such associations as the California Fruit Exchange and Georgia Peach Growers' Exchange.

In 1908 many of the young peach orchards of Georgia, that had been planted during the peach planting boom a few years before, came into bearing. The growers were not organized and the crop went through the usual channels to the large fruit distributing centres, with the result that the commission men were overwhelmed

with fruit, especially on certain days, and as neither the merchants nor the consumers anticipated so heavy a stock much of the fruit was sold at ruinous prices, and some of it could not be sold at all and was finally condemned by the health authorities. At the same time there were dozens of smaller outlying cities, towns and villages containing in the aggregate a very large number of peach consumers, who had an insufficient supply of fruit or had none. Being a perishable commodity no time was afforded for communication between the distributing centres and those outlying towns. It is needless to say that the returns to the peach growers in Georgia were extremely disappointing. Nevertheless, it had this good effect, that it proved beyond a question that some improvement must be made in the mode of selling Georgia peaches. The following year the crop was still larger, more or harder had come into bearing, and it was a good peach year. But in the meantime the peach growers were thoroughly organized into co-operative associations with a central selling association, and hundreds of carloads were carefully routed, so that the large distributing centres received only what they could consume; and if there was a surplus, one or more cars were sent to agents who had been selected in these smaller towns and villages, where an independent buyer would not have risked so perishable a consignment. The result was that, although the crop was nearly doubled, there was no glut of Georgia peaches upon the market the second year, and a large number of new markets were opened up at practically no cost to the fruit growers, inasmuch as these smaller towns usually made a fair return for the fruit shipped them for the first time. This incident is only one of scores that might be cited to emphasize the fact that 'gluts' can be avoided *only at the growers' end*. Merchants can do little to prevent gluts and are even more helpless in turning an over supply to any good account.

MARKET REQUIREMENTS.

Though the average fruit grower may be quite competent to meet the needs of the local market, the case is quite different when it comes to the long distance and the export market. Complications arise in these markets that render it practically impossible for single growers to compete with success. In the local market it is largely a question of the individual buyer catering in small quantities to the likes and dislikes of single individuals. For the long distance and the export trade the requirements are altogether different. Among these none are more important than the following, namely,

1. Large lots of fruit,
2. Few varieties,
3. Uniform packing, grading and marking which implies:
4. Skilled labour retained for the most part from year to year.

The underlying principle in all these is uniformity, and uniformity is asked to enable merchants to deal in large quantities. Skilled labour is necessary to ensure this.

CO-OPERATION IN PRODUCTION AND MARKETING.

For the ordinary methods with which we have been dealing, it is proposed to substitute co-operation in packing as well as in selling, and incidentally in any other phase of apple growing that will lend itself readily to this mode of operation.

The following advantages will be gained:

- (1) Large stocks will be controlled by sellers who will act as a unit.
- (2) Uniform packing, grading and marking will be practiced.
- (3) A reputation associated with a permanent brand or trade mark will be established.

- (4) The cost of picking, packing and marketing will be reduced.

- (5) Fruit will be picked and packed at the proper time.
- (6) Less common varieties can be shipped profitably.
- (7) By-products can be utilized.
- (8) Storing facilities will be better provided for.
- (9) Direct selling at the point of production will be encouraged.
- (10) Packages will be bought in large quantities or manufactured on the premises with a material reduction in cost.
- (11) The co-operative use of spraying apparatus or other expensive orchard implements will be encouraged.
- (12) The purely commercial part of the industry will be placed in the hands of the most competent men whose interests are identical with those of the other members of the association.
- (13) The manager and better growers among the patrons will have every inducement to stimulate the less progressive members to better work.
- (14) Facilities for extending credit or making cash advances can be easily and cheaply furnished to fruit growers.
- (15) The distributive sides of co-operation even beyond orchard supplies will be encouraged.

Large Quantities.—The influence of what merchants call 'long lines' is seldom appreciated by the individual grower. The cost of selling is almost as great for a small quantity of produce as for a large. Where each individual fruit grower makes his own shipments, these may vary from two or three barrels to, perhaps, two or three hundred, but the smaller number is much more common than the larger. It is necessary, therefore, for the merchant in selling, to open a sample of each brand and make a special effort in the sale of this brand. This takes time which must be paid for out of the proceeds of the fruit. It also injures the fruit to a certain extent. This cost becomes a charge. Hence the advantage of co-operative associations with a common brand and a uniform system of grading.

But when we approach the larger markets of the world there are always merchants whose trade calls for extraordinary quantities of fruit. It costs these merchants a large sum of money to aggregate this from the ordinary small-lot consignments. If, then, they have an opportunity of getting this extraordinary quantity of fruit in one lot, they are willing to pay an advanced price for it and save themselves at least some of the cost of aggregating small lots. For this reason, as well as for many others, it is always advisable for the individual co-operative associations to unite as soon as they are numerous enough, into large bodies, and thus secure as large an aggregation of fruit as possible.

Uniformity in Packing and Grading.—Of course the value of a large stock is lost to a great extent if the sample is not perfectly uniform throughout. As the size of a co-operative association increases, the difficulty increases in keeping the brand uniform. A co-operative association should be limited to the number of members that furnish a unit for a single overseer. Hence also the necessity of adopting the central packing house system where the packing will be done by a single gang of packers. Uniformity in grading and packing adds very largely to the price of goods quite independent of its intrinsic merits.

The Reputation of a Brand.—There is a quick recognition in the markets of the world of brands that are uniformly well packed and such brands have a value quite apart from the merits of the fruit. A case in point is that of an Ontario dealer doing a large business in the better grades. He had graduated from the employ of a good apple packer, and when he started in business for himself, gave five cents per barrel for the privilege of using his employer's brand. Though he has paid his old employer thousands of dollars for the use of his brand it is only a small amount compared with what many growers are making or losing as the result of reputation.

Co-operative Methods and Brands.—There is a difficulty, of course, in maintaining a high standard of brand. This difficulty is much greater in the case of a private individual than in the case of a co-operative association. A private individual has every incentive to trade upon his reputation once it is made, and unless he is particularly conscientious and strong-minded he is apt to overlook certain defects in the fruit that place it below the standard of the brand under which it is shipped. Under co-operative methods there is no such incentive; it is rather the other way. The manager is proud of his brand and has everything to lose and nothing to gain by lowering this standard. He owns none of the fruit but he has his own reputation to maintain and this can only be done by maintaining the reputation of the brand. Under the central packing house system he has direct personal oversight of all the work of the packers and thus is enabled to enforce uniformity not only for a single season but from year to year. It is not too much to say that the extraordinary prices procured by the growers of fruit on the Pacific Coast are the result largely of a reputation for perfect uniformity in grading and marking. It must be added, however, that only good fruit is shipped, but the quality tested by the eye or by the palate is certainly not better than the fruit grown in the east, graded with the same care. If there were no other inducements than simply the securing and preservation of a reputation for a brand, co-operation would justify itself.

Economy in Harvesting and Marketing.—The system practiced in Ontario by private dealers is most extravagant. It is seldom that a buyer can secure all the orchards in a particular neighbourhood. More frequently the orchards of any particular buyer are separated by long distances. Since all the growers will not pick their fruit, the buyers are obliged to keep gangs of pickers and packers. At this season of the year labour is particularly scarce and apple packers have found it impossible to secure the kind of labour they would like. They are obliged, however, to take what they can get, and it is no slander to say that the labour secured is far from being efficient.

The transportation of these gangs from orchard to orchard takes time and is otherwise very expensive. Rainy weather intervenes, when the apple buyer is obliged to pay heavy expenses for board bills with no work whatever going on. Even with his best endeavours grave mistakes will be made, the cost of which must ultimately depress the price which the apple buyer can pay. The apple buyer also is not slow to assert that where orchards are bought the grower not infrequently fails to protect the fruit between the sale and picking time, and thus adds another formidable loss which falls upon the price of the fruit.

It is not too much to say that the fruit could be picked and packed by the grower of the fruit for one-half what it costs the ordinary apple dealer.

Picking Fruit when it is Mature.—One of the sources of trouble with packed apples is to be found in the fact that the varieties are not picked at the proper time. Under the old system of itinerant buyers this evil was a most pronounced one. The packer could not usually afford to visit the orchard more than once, and twice would be exceptional. In the meantime certain varieties of apples had become over-mature. Other varieties were picked before they were quite ripe, inasmuch as another visit could not be made. The packing of immature fruit and over-ripe fruit, often in the same lot of apples, accounts for many cases of poor condition at the market end.

Under the co-operative method this evil may be corrected. Varieties are taken just as they mature without extra cost, and there is no temptation to pack immature apples.

Utilizing Special Varieties.—In many of the older orchards a great variety of apples were planted and so long as the grower used only the local market this proved an advantage, but for shipping purposes these odd varieties proved very detrimental. Many shippers allowed them to remain on the tree, rather than break a brand for a few barrels of this variety or that.

The Colvert.—Under co-operative methods many of these varieties have become exceedingly valuable. A case in point is the Colvert apple in Western Ontario. The Colvert is a prolific apple, of excellent quality and, though not as attractive in colour as a red apple, is very acceptable where it is known and where it can be obtained in good condition. The ordinary apple buyer, however, found that there were too few in any one orchard to make it worth his attention. They were rather soft to ship with fall or winter apples and so usually proved a loss to the grower. With the establishment of co-operative associations the Colvert has become one of the most valuable varieties for its season.

The Gravenstein.—It is not at all unlikely that co-operative methods have given a new lease of life to the Nova Scotia Gravenstein. For many years before the establishment of co-operation in Nova Scotia the Gravenstein, for several reasons, was falling into disrepute with the growers. Coming as it does early in the season and demanding the very closest attention in picking, packing and shipping, the ordinary methods of private dealers seldom proved satisfactory so that, although the quality of the fruit was unsurpassed, it did not prove profitable. Under co-operative methods all this is changed. The picking is done at the proper time, the packing is better, the shipping is much more prompt, and the markets are better prepared, so that the fruit goes into consumption immediately, when it is at its best. As it is now handled by the co-operative associations it is likely to prove one of the best paying varieties that Nova Scotians can grow.

By-products.—Among the many advantages of co-operation not the least is the opportunity to utilize the lower grades of fruit and culls as a marketable product. As the orchard business in Canada has been conducted in the past, what are ordinarily known as the waste products have indeed been a positive waste, and it is not too much to say that if the by-products of the orchard had been managed as successfully as the by-products of the meat packing industry, the results would have been equally satisfactory. The orchards of Canada should be turning out, in addition to the choice green fruit, large quantities of canned apples, apple jelly, evaporated apples, cider and cider vinegar.

Improvement in the Grade of Green Fruit.—The advantages would not all be put under the head of mere 'saving.' If there was a reasonably profitable outlet as canned or evaporated products for the lower grades of fruit, there is no doubt whatever that a much closer grading would be the result. No. 3's would practically disappear from the public markets, and a better grading of No. 1 and No. 2 would soon be established.

Under the old methods of marketing Canadian apples it was practically impossible to utilize economically the orchard by-products. There are a few evaporators and a small quantity of cider is made, and some cider vinegar, but none of these products command the highest position in the open market. Our evaporated apples belong almost exclusively to the lower grades, and our production of cider and cider vinegar is so small in quantity as scarcely to make a showing.

Association and By-product Factories.—Under co-operative methods conditions will be much improved. Privately owned evaporators, canning factories, etc., are undoubtedly of some advantage to fruit growers, but the lower grades of apples and the culls will never be utilized to the greatest advantage, both as regards the financial returns to the producers and the quality of the product, until all these establishments are owned by co-operative associations. It is only then that the supply can be definitely calculated upon and the quantity of it definitely known. One of the first effects of the establishment of evaporators, for instance, would be the manufacture of the highest grade of evaporated fruit. For this it would be necessary to use the very highest grade of No. 3, or possibly a large part of what is now packed as No. 2. There would be no temptation, if evaporators were established at all convenient apple-ship-

ing points, to use anything but the highest grade of No. 1 and No. 2 as green fruit, inasmuch as the lower grades would probably bring a higher price as extra choice evaporated stock than they would as green fruit in barrels.

Unfortunately the great advantage in this is not yet thoroughly understood by our apple growers, and there is a reluctance on the part of associations to undertake what they regard as an outside line of business, involving considerable expense. In this, however, they are mistaken. We have enough examples of co-operatively managed evaporators and canning factories to show that the advantages in this line are quite as great as in the shipping end of this business. The financing of this enterprise should not be a difficult matter, once growers have confidence in their own institutions. A comparatively small amount of ready cash supplied by the growers would induce outside capital to come in at a moderate rate of interest.

Storage Facilities.—No feature demonstrates the value of co-operation better than the establishment of storage facilities at the point of production. It is very true that in Nova Scotia and Ontario large warehouses were put up by private dealers that were an accommodation to the growers, but in all such cases a heavy toll was exacted, if not directly by way of a storage fee, then indirectly in the control which the warehouse owner obtained over the selling of the fruit. Many private growers found it advantageous to put up warehouses of their own; smaller growers, however, could not do this. By co-operative methods one or more storehouses are built that accommodate the fruit of all members. The same accommodation furnished in a number of small houses, built by individual growers would, of course, cost considerably more than one built large enough to accommodate the fruit of the whole association. Such a warehouse is always open for the reception of fruit and is usually conveniently situated for shipping it.

Warehouses in Nova Scotia.—The co-operative associations of Nova Scotia have appreciated the value of warehouses and nearly every one of the societies has erected its central packing house. The popular size is 100 by 40 feet with a basement and attic for storage. Such a warehouse will store 10,000 barrels of apples and will accommodate quite easily a crop of from 20,000 to 25,000 barrels. Great improvements have been made lately in the matter of insulation. Ventilation also receives more careful attention. The cost of such warehouses will vary according to the local price of material from \$3,000 to \$3,500. Some larger warehouses are being built 150 by 40, with a reduction, of course, in cost in proportion to the storage capacity. So far all the warehouses have been built of wood. It is just possible that, where lumber is very dear, brick or concrete would be the cheaper material.

Improved Methods of Selling.—Enough has already been said to show the very great advantages, in a general way, of selling collectively. One or two points, however, may be still further emphasized. It must be admitted that when the best has been done it is difficult to designate the quality of apples with perfect accuracy by a grade mark. It must be admitted, also, that the contingencies of shipping are too numerous to be definitely foreseen and estimated. It is therefore particularly important that the buyer and seller should meet at the point of production. This is made possible by co-operative selling. Even a single association will accumulate enough fruit to attract buyers in sufficient numbers to secure competition. In this way any difference of opinion with reference to the quality of the apples can be settled on the spot when both buyer and seller are present, leaving no room for misrepresentations and rebates as is too often the case where the fruit is accepted only at the market end.

Packages.—Fruit growers use large quantities of packages. Indeed in few lines of fruitgrowing is the cost of the packages less than twenty per cent of the gross proceeds. It is then apparent how important it is that this end of the business be closely watched. Private growers cannot always secure their packages conveniently. At best each must give a small order with the result that high prices prevail. By

co-operative methods these small orders are assembled into one large order, with very great economy in the buying. This economy is an essential one. It is an advantage to the cooper or the basket maker, inasmuch as it enables him to place his order for stock early in the season, enables him to hire men and keep them at work during the usual slack seasons, and it also does away with any losses by bad debts.

Many associations have gone a step further and manufacture their own packages. A set of cooper's tools for making apple barrels costs from \$20 to \$75, according to how elaborate the fixings may be. Any existing building having a large floor space, will do, with very little change, for a cooper shop, and men may be employed during the slack months, and barrels may be manufactured here any time during the year. Not only does this enable the growers to obtain their packages somewhat cheaper than they could get them from a cooper, but it also helps to solve the problem of labour on the fruit farm. Any intelligent labourer on the farm can soon be taught to make an apple barrel as well as the ordinary cooper. In winter time and on stormy days when work outside is impossible, these men can be employed inside.

Purchasing and Using Implements in Common.—The orchardist is subject to heavy expenses for implements, spray material, and general repairs. These can seldom be purchased by private individuals satisfactorily. Prices to individual growers of course must be retail prices, with frequently very heavy profits added. Dealers, trusting to the chance purchases of individual growers, can not accurately estimate the number of implements or the quantity of material required, and to be on the safe side usually order less than the needs of the neighbourhood, with the consequence that some one is short. But the experience of the last few years has shown that co-operative associations can reduce the cost for implements 15 to 30 per cent, and a very great reduction is made by several neighbours using a single high priced machine instead of each purchasing for himself.

Securing Expert Business Men.—It is scarcely to be expected that every fruit-grower should excel as a business man. Not the least of the advantages of co-operation is the fact that the best business ability can be secured for the purely commercial end of the industry. The advantages of this are self-evident. A man may be a most excellent grower of fruit, but it would be phenomenal indeed if he could form a proper judgment of markets and prices, without an expenditure of time and money totally disproportionate to the value of his crop. The same time and money expended by the Manager of the Association would enable him to sell the products, not only of one association but of several associations.

Educational Value.—Perhaps no single feature of co-operative work has conducted more to the benefit of the industry than the educational work that is being done. Under the old system there was little incentive on the part of anyone except the grower to improve the product. The buyer was not sure of being able to secure any particular orchard a second year, and so he wasted no time in giving instructions; the better class of growers did not come particularly in contact with other growers in such a way that they could bring any pressure to bear upon them for improvement. All this, however, is changed under co-operative methods. In a properly managed association, the manager is constantly on the alert to avail himself of every means of securing better fruit. His reputation as a manager is at stake and for this reason he has a definite interest in the improvement of the brand. It has become the practice of nearly all the associations to issue special literature giving instructions in the care of orchards. Demonstrations are arranged for in spraying and the more backward members are urged by their fellow growers to improve their methods in order that the general brand may be as high as possible. Every feature of the business is an incentive to the grower of the poorer grades to reach the standard of the better growers. The effect of this is very marked. Many examples could be

given where orchards that yielded a comparatively small sum of money before the advent of co-operative associations have greatly increased in output and in the quality of the fruit so that the revenue is sometimes quadrupled.

Cash Advances.—In looking over the difficulties that have beset existing co-operative associations, few have been so serious as the necessity of making advances upon fruit that is being shipped. Unfortunately many of our apple growers are not forehanded in the matter of money. There can always be found private dealers who, in consideration of a reduced price, will buy apples for ready money and there is a strong temptation on the part of many growers to accept this lower price for the sake of securing cash. It is the duty of co-operative associations to meet the necessities of these men. In the incorporation of the companies, however, provision is seldom made for a large capital for immediate use, most of them depending upon the returns from the apples to meet their needs. In the case of many fruit growers this is satisfactory enough, but fails completely where help is most needed. It must be accepted, therefore, that part of the work of every association is to act as a credit association for the convenience of its members. This can be done easily if the directors will proceed in a business-like way.

Although co-operative associations are not yet sufficiently well established to command capital from ordinary banks upon the credit of the association alone, yet there are few associations where the personal note of the directors will not be accepted for any reasonable amount as security for an advance. The directors in this case, having charge of the business of the association, run no risk whatever. They regulate the advance up to a safe limit on the quantity of fruit shipped by each member. Such an arrangement has been worked satisfactorily for many years by several of the associations, and in no case has any director or anyone connected with the association, lost a cent by these transactions. Simple as the process is, a great many of the associations have lost valuable members because they failed to provide for their legitimate and reasonable financial demands.

Distributive Co-operation.—Distributive co-operation has become a strong feature among a few apple selling associations in Canada though the great majority have made little use of the organizations for this purpose. This is particularly true with reference to Ontario, where the associations are widely separated, preventing any constant interchange of ideas and plans. Another cause is that many associations are not large enough to get the full benefit of buying in wholesale lots. Nevertheless there seems to be no good reason why distributive co-operation should not be extended till it includes practically all the supplies that orchardists need.

St. Catharines Cold Storage and Forwarding Company.—An exception must be made among Ontario societies in the case of this association which is one of the older societies and from small beginnings has become one of the largest. It has been fortunate in having a manager more than ordinarily intelligent and public spirited. The following is a list of the supplies distributed by this association in 1912:—

Boxes, apple	2,500
“ pear	600
“ berry	40,800
Crates, berry	9,476
Baskets, 11-qt.	276,200
“ 6-qt.	780,900
“ 4-qt.	80,000
Basket fasteners, packages	2,000
Spray pumps, large	30
“ hand	80
Rubber hose, feet	4,000

Arsenate of lead, pounds	28,234
Paris green "	32
Blue stone. "	9,450
Sulphur, "	420,200
Muriate of potash "	54,000
White arsenic "	465
Nitrate of soda "	15,000
Acid phosphate "	32,000
Lime, bushels	2,700
Lime and sulphur, barrels	425
Manure, carloads	60
Sugar, bags	100
Bone meal, pounds	111,000
Mixed fertilizers, pounds	18,400
Hydrometers and tubes	92
Binder twine	1,200
Grape twine	1,900
Tanks, boiling	17
Ladders	115
Posts, grape and fence	6,536
Paper, wrapping, reams	1,800
Oats, bushels	3,600
Tile, drain	70,000
Fertilizer sowers	5
Tacks and nails, pounds	4,800

To this list must be added many articles for household use, purchased through the association in wholesale quantities. The value of supplies distributed in 1912, would aggregate about \$75,000. The manager estimated that the members of the association have saved in one year, by purchasing in this way, not less than \$15,000.

The Labour Problem.—During the season of 1911 the associations of Nova Scotia had a most forcible demonstration of the value of co-operative effort in solving the labour problem. They had an extraordinary crop of nearly two million barrels, which is twice the normal crop for the province. As will be inferred, when picking time came few people were prepared for the emergency. If each individual grower had been obliged to provide for his own labour, it is not too much to say that a very large percentage of the crop would have been lost for want of help to pick and pack at the proper time. But the Central Association came to the rescue of the individual growers by advertizing in the labour centres for a small army of pickers, and the result was that the labour difficulties were not at all serious. Even if the growers could have secured these labourers individually the cost would have been many times as great. As it was, few of the growers belonging to the co-operative associations had any labour difficulties.

BENEFITS TO OTHERS THAN MEMBERS.

One of the satisfactory things in connection with the apple selling co-operative movement is the influence which it has upon the trade generally. The co-operative associations have undoubtedly improved the quality of the apple pack, and at the same time they have secured a higher price for their apples than could have been obtained by individuals. But these advantages are not confined to members of associations. Others have benefited greatly in the matter of price through the work of these organizations. The Norfolk County Fruit Growers' Association, for instance, has put up an excellent pack and has received prices much above the average. The effect has been to increase the price of all apples that can claim to be Norfolk County apples.

THE RISE IN LAND VALUES.

In many cases the price of the orchard lands has increased very rapidly as the result of the work of these associations. The value of the orchard land in the neighbourhood of St. Catharines, Ontario, has at least doubled. Those who are thoroughly competent to form an opinion upon this matter assert that this is due, in a large measure, to the work of the St. Catharines association, and if it is so, this association is a most valuable asset to the neighbourhood.

The County of Norfolk is another example of the power of fruit selling associations to benefit a neighbourhood. This county is one of several bordering on the north shore of Lake Erie and it is no disparagement to say that it possesses no advantages in the matter of soil and climate over any of the other counties in that tier. Yet the value of fruit land in Norfolk county, quality for quality, is much higher than in the other counties that do not possess co-operative associations.

It is difficult to say just what co-operation has done for the value of real estate in the three principal fruit growing counties of Nova Scotia: Hants, Kings and Annapolis, but the fact remains that there has never been so rapid an increase in the value of real estate as has taken place since the organization of co-operative associations in recent years.

The effect of co-operative associations is equally marked in British Columbia, where 75 per cent of the fruit is now handled co-operatively.

SUGGESTIONS WITH REFERENCE TO ORGANIZATION.

Forming an Association.—The details of organizing an association are comparatively simple. After the whole matter has been discussed in an informal way among those who are interested, a meeting is called to elect the necessary officers. The officers usually selected consist of the president, vice-president, secretary-treasurer, and five or more directors. At this stage the secretary should write to the Provincial Department of Agriculture for details in the matter of securing a charter. Full information will be given as to the procedure, step by step, until the charter is obtained. The expense of this is very slight. After receiving a charter the association is then ready for business.

The office of secretary and treasurer is often combined.

In a small association it is usually better to combine the office of the secretary and manager. The manager creates the correspondence and has time in a small society to attend to all the secretarial work.

Officers should not be selected except for ability in the line of work required by the position.

In the case of a large association it is often better to hire an outside man as manager, in which case the engagement should be a yearly one.

Guarantee Bonds.—In all the larger associations any official handling money should be required to furnish bonds. In most cases the guarantee of two or three good men in the neighbourhood may be accepted, but ordinarily it is better to secure a guarantee bond from some corporation making a specialty of this business.

Auditing.—A strict system of auditing should be insisted upon. In the case of smaller associations where the business is somewhat limited, some members of the association will, in all probability, be quite competent to act as auditors. But usually in cases of this kind the business should be put in such a form that every member of the association may know the receipts and expenditure in considerable detail. In the case of a larger association it is better to call in an expert accountant to make a yearly audit. The cost of this is not large. It gives well disposed members a further confidence in their association and effectually stops a great deal of pernicious criticism. It tends to grow up even in a well conducted association, where there is not the utmost publicity.

Membership.—As far as possible every association should open its doors to the widest possible membership. Nevertheless, it is seldom satisfactory to secure members by over-persuasion. It is a great mistake to think that all the large growers of a district must be in the association in order to make it a success. It is usually desirable that the large growers should be in the association of the neighbourhood, but as they are likely to benefit less immediately than the smaller growers, they are sometimes loath to join. Not infrequently it is better that large growers do not associate with the smaller growers.

Equality of Interests.—The ideal aimed at in every association should be to have members with equal interests in every way. It is exceedingly difficult in some cases to harmonize the interests of a man who has five acres of orchard with the interests of the man who has a hundred acres. It is often better to form two associations in a neighbourhood if there is a sufficient number of two distinct classes of growers. Small growers may unite in one association and the larger growers in another. There should be no difficulty in harmonizing the interests of these associations in that case. Of course it is understood that this recommendation is made only where the organizations are conducted in the spirit of mutual helpfulness. Such associations can conduct much of their business as one association. In the California orange districts it is not uncommon to have three or four co-operative associations at a single shipping station, in some instances, occupying a common building. In these associations there is not a semblance of rivalry except the friendly rivalry of each association to outdo the other in benefitting the industry. The spirit of selfishness is just as reprehensible in an association as in an individual, but its power for evil is vastly multiplied.

Outside Dealing.—One rule that should be considered fundamental in all associations is that members must sell all their fruit of a special kind through the association. In the early history of the associations it was thought impracticable to draw the line too close with reference to this and almost without exception an amendment had to be made to the rules. It was found that growers who were allowed to sell some of their fruit outside of the association and some of it through the association, sometimes at least took advantage of this arrangement to the detriment of the interests of other members of the association. If the higher grades were sold by private sale and then the rest of the fruit 'pooled' with the association fruit, there was a manifest injustice. Better exclude a member altogether than allow him to sell any fruit without the permission of the association.

Association Assets.—One of the difficulties in connection with co-operative associations, especially the smaller associations, is to hold the members together from year to year. An important factor in this connection is the acquiring by the association of a certain amount of assets. This can be either as paid-up capital and in cash, or it may take the form of investment in warehouses, evaporators or other appliances for the use of the association. This gives the association a stability that it would not otherwise have, and it should be the aim of those who wish the movement success to secure these hostages to continued membership as early as possible in the history of the association.

Co-operative Bookkeeping.—Co-operative bookkeeping does not differ in general principles from bookkeeping of any other kind. Many associations, however, will have their bookkeeping done by those who have had little experience in bookkeeping involving the interests of others. To such it may be said that every material fact should be a matter of record. Contracts should be in writing. Verbal agreements should be confirmed by letters. An entry should be made immediately of money paid and received. Receipts noting exact amounts of quantities should be taken and given for money or produce interchanged. Whenever a transaction is at all complicated a written statement of all the facts should be on record in addition to the bare entries in the regular accounts.

It will usually be found that much time is saved and more satisfactory work is done by having printed forms for receipts, stock lists, packing table records, etc. In the case of receipts for fruit they may be padded so that a carbon paper between two leaves will give duplicates, one of which can be filed at the office and the other given to the patron.

It will usually pay an association to consult an expert accountant who will suggest books and forms to suit the special needs of the circumstances. Each association has something peculiar in its mode of working that needs a special provision, but no device will take the place of conscientious carefulness on the part of the bookkeeper and a record of all material facts.

Incorporation.—Of course, it is quite possible to do a co-operative business without incorporation. Where the members have perfect confidence in each other and where the business is not complicated, the association can often be conducted just as well without incorporation as with it. It is, however, a dangerous mode of conducting business where large amounts of money are concerned, where liabilities are incurred, and where the members are not familiar in detail with each other's affairs. Such an association would, in all probability, be regarded at law as a kind of partnership where each one would be responsible for the acts of the association as a whole. It might be even possible for some indiscreet member to incur liabilities involving rather inconvenient consequences. It is urged, therefore, that every association seek incorporation. The advantages are numerous. The liability is limited to the amount of stock held. No member can create for another a liability. The association can sue and be sued without trouble or inconvenience to the members, and responsibility is placed upon individuals who can be held accountable.

CENTRAL PACKING HOUSE.

In the earlier history of the co-operative associations the central packing house was not usually adopted. It was the almost universal custom for each farmer to take his fruit, graded and packed by himself, to a warehouse at the railroad station where the manager of the association assembled the different varieties and grades and shipped in carload lots or quantities to suit his purchasers. It was very soon found, however, that while this improved the uniformity of the pack somewhat, it still left a great deal to be desired. This is not due always to fraudulent intent on the part of the members, although it must be admitted that there were few associations practicing this method that did not count among their members some who were fraudulently inclined. Nevertheless, with the best intention it was simply impossible to get 10, 15 or, perhaps, 50 growers to observe the same standard, with a sufficient degree of uniformity to meet the needs of the market. To overcome this difficulty the central packing house system has been adopted by practically all the newer co-operative associations.

The central packing house system consists in having a common warehouse, usually at a shipping station where the apples can be loaded on a siding. The apples are brought from the orchard in barrels unheaded or, if headed, unpressed. It is absolutely necessary that they should be drawn to the packing house on spring wagons, although a few of the smaller growers substitute for a spring wagon the ordinary hay rack filled level with hay or straw. On this the apples are placed and carry with comparative safety. These are delivered to the central packing house and a receipt is taken. In the central packing house a gang of expert packers are employed who have no knowledge of whose apples they are packing. The result is that the apples of the whole association pass through the hands of a single set of graders and uniformity is secured.

Many growers who have not given this matter proper consideration object to having the grading of their fruit taken out of their hands. Nevertheless, it must be admitted that few men can be trusted to pack their own fruit. Of course the more intelligent

the fruit growers are the more capable they are of packing their own fruit. Yet even among growers so intelligent as those in Hood River, Oregon, the expert packers of the association grade and pack all the fruit. I need not go into the reasons for this. Upon the moral side, I think it will be admitted that fruit growers, on the average, are constituted with enough selfishness to induce them to look out for themselves, and the line between looking out for themselves and giving the public a properly packed box of apples, is so indistinct that people who pack their own apples often yield to the temptation of overstepping the mark. On the other hand, men who are employed to pack up to a certain standard and who are working day by day with apples belonging to many different owners, whose fruit they do not distinguish and in whom they have no special interest, have no temptation to grade below the proper limits. There is also a purely economic reason for adopting the central packing house system: individuals who pack and do nothing else become extremely expert at this work and can do more and better work, and so not only reduce the cost of production but actually improve the grade of the product.

In the case of early apples and soft fruits that will not admit of being readily taken to a central packing house, an alternative plan is adopted, namely, sending the central association expert packers to pack the fruit in the orchard of the grower. A combination of the two systems is found to work satisfactorily in the Norfolk Fruit Growers' Association, where the greater part of the fruit is packed in the central warehouse but, in addition, expert packers from the central packing house, are sent to put up the fruit of growers in certain outlying orchards.

CENTRAL ASSOCIATIONS.

Single associations are experiencing some of the evils that formerly met private shippers. They find that a single association is not large enough to cope with the problem of selling fruit in the distant or in the foreign market. This has led to the formation of unions of local associations. This form of organization has been found absolutely essential in the marketing of citrus fruits in California, and the California Fruit Growers' Association may be taken as a good type for organization. The membership is composed exclusively of associations, and the business is confined entirely to the selling end. All details with reference to the fruit up to the time it is ready for market are left in the hands of the local associations. Of course, precautions are taken to enforce proper grading and marking. In this way it is possible to place this, the most intricate part of the business end of fruit growing, in the control of experts who are in the employ of the association. Owing to the large quantity of fruit under a single control, such a central association has great power in regulating the supply for different markets and thus increases the consumption as well as improves the price to the grower. They are able, also, to cope with many problems too large for a single association, such as questions of transportation and distribution in foreign markets.

The United Fruit Companies.—The best example we have in Canada of a central selling association is the United Fruit Companies of Nova Scotia. The membership of this company consists of co-operative associations operating in the Annapolis and Cornwallis valleys. They operated for the first year with a very imperfect organization in 1910. In 1911, the organization was much better and did splendid work under most adverse conditions. The crop of Nova Scotia was a phenomenal one. A large crop was expected, but even the most sanguine calculations were exceeded by 25 per cent. In all probability there were not less than two million barrels grown in Nova Scotia in 1911, nearly three times the average crop. The transportation companies were unprepared for the task of moving this enormous crop and serious consequences threatened. Fortunately, however, the central association was sufficiently organized to materially assist in the work. In the early part of the season, soon after

the main crop began to move, it was found that there were hundreds of carloads of apples in the yards at Halifax sweltering in the hot sun, with the steamship capacity entirely taken up. Of course, these apples could not remain in the yards long without serious detriment to the fruit and as a temporary remedy the association succeeded in inducing the railways to send out four solid train loads of apples to Montreal, connecting there with the ocean steamships leaving for European ports. This, however, proved only a temporary relief, and the managers of the co-operative associations proceeded to American ports and chartered four steamships that were loaded immediately and sent to Europe, carrying altogether something over forty thousand barrels of apples. This relieved the situation greatly, and it is not too much to say that had it not been for the efforts of the central association thousands, if not tens of thousands of barrels, would have rotted in the orchards for lack of transportation facilities. No private dealer, nor any probable combination of private dealers, could have solved this transportation problem as did the United Fruit Companies.

The usual markets for Nova Scotia fruit would have been greatly over supplied if the older market methods only had been used. The co-operative association, however, sent agents to the Northwest and sold many thousands of barrels in a market never before supplied by Nova Scotia fruit. They also succeeded in opening up a large direct trade with Germany, selling the dealers there nearly one hundred thousand barrels of apples.

This is sufficient to illustrate the great value of a central association. Without it the Northwest market could not have been exploited even by the strongest single association, nor could the German market have been opened up.

On the distributive side the central association has proved that it is able to make a great saving in orchard supplies. One of the largest items in the running of Nova Scotia orchards is the fertilizer bill. The central association bought for their patrons in 1911-12, nearly fifty thousand dollars worth of fertilizer. The saving upon this was \$3 per ton, or a total of \$6,000. It should be emphasized here that this saving could not have been made by the associations working separately. The fertilizer companies made a determined effort to maintain the system of sales through local agents. This they could have done if they had had to deal with individuals or individual associations. It would have been a case of a united army of fertilizer manufacturers against unorganized fruit growers or of small organizations. The fruit growers would have been beaten in detail. The United Fruit Companies with their superior organization won out, but not without a hard struggle.

ORGANIZATION AMONG EXISTING ONTARIO ASSOCIATIONS.

As has been noted, co-operation such as we have among our apple sellers, is in its details a local development. It was not a complete system imposed from without, but simply a general idea, the development of which came from the fruit growers themselves. Under these circumstances it is but natural to expect that the form of organization would be almost as various as the number of societies. One of the largest and most successful co-operative associations in Ontario is not incorporated. Officers are elected at the beginning of the year, and each season's business is closed and disposed of and the association nominally disbanded.

Other associations make provision for continuity of existence without being incorporated. The officers hold their positions until their successors are elected, but the business is practically conducted in the name of the manager or some other individual.

In a few cases a small number of growers have united as a joint stock company, and this company own the warehouses and other property. They have, however, a general organization that includes all growers that work, so to speak, in harmony with

the joint stock company. This peculiar arrangement was adopted by an Ontario society that for several years worked quite successfully, but unfortunately a large quantity of the stock was held by townspeople who were not growers, but were interested in promoting the advancement of the neighbourhood. The spirit of dividend-making crept into the management. The rental for the warehouse which was owned by the company and the expenses as determined by the company, were considered too large by some of the growers. The dissatisfaction spread and finally the company, composed largely of non-producers, found itself with a warehouse and nobody using it. The company, of course, went into liquidation. Unfortunately the fruit growers associated this mismanagement with co-operation and no efforts have been successful since in establishing a purely co-operative selling association in that neighbourhood. It is quite probable, however, that with the numerous examples now in existence of successful co-operative associations, several places similarly situated will organize again but on better lines. Practically all the successful associations in Ontario that are incorporated, are simply joint stock companies and they owe their success to the fact that the influential members have adhered to co-operative methods as far as possible and have not taken advantage of the powers which joint stock incorporation gives them to turn the association into a dividend-making concern. Indeed one or two of the associations have gone to the other extreme and have paid no dividends on the capital invested. This, however, was so manifestly unfair to a few individuals who had furnished capital much beyond the average, that part of the proceeds of the business is now distributed as dividends upon the stock limited to 5 per cent.

CO-OPERATIVE LEGISLATION.

None of the provinces have special Acts that provide for strictly co-operative incorporation. There are, however, means by which farmers' associations can be incorporated. New Brunswick and Ontario have each a joint stock company Act which, however suitable for industrial concerns, is not at all suitable for co-operative purposes.

The Prince Edward Island Association was incorporated by an Act of the local legislature. The Nova Scotian Act for the Incorporation of Farmers' Associations is drawn up along the lines of the usual joint stock company organization and is of course objectionable on that account. It, however, serves the purpose fairly well.

The United Fruit Companies of Nova Scotia was organized co-operatively by a Special Act of the local legislature. Quebec has an Act under which farmers' associations can incorporate with some co-operative features, but with share voting. The Act for Incorporated Farmers' Associations in British Columbia permits associations to organize conveniently on the joint stock principle.

PROPAGANDA.

A most notable feature of English distributive co-operation is the very large sum of money devoted to educational purposes. In the year 1910 this amounted in round numbers to one hundred thousand dollars. When the societies were few and the wholesale organization was struggling for existence, it was of vital importance to organize more societies. But now that the societies have become numerous and the wholesale society unassailably strong, little individual benefit can come either to the societies or their members by new organizations. The educational fund of the British co-operators is conceived in the purest benevolence and with a cordial recognition of co-operative fraternity.

In the case of Canadian apple selling associations we do not need to appeal to this spirit of altruism alone. Further organization is absolutely essential for the material interests of the industry. The numerous plantings that have been made in British Columbia of late years are now beginning to put fruit upon the market.

Ontario's output is increasing rapidly and Nova Scotia is certain, under the stimulus of her co-operative organization, to continue planting at an increased rate. It must not be forgotten, too, that there has been an equally vigorous revival of apple growing in the United States immediately to the south of us, and it is but natural to expect still larger quantities of fruit from this source. For market purposes the apple crop of the United States and Canada is practically one. There is a surplus for export in both countries and both countries are looking to the same foreign markets as outlets for this surplus. If we do not meet the competition of American grown apples in Winnipeg, Saskatoon, Regina, Calgary or Edmonton we must certainly meet it in Liverpool, Glasgow, London and Hamburg. Success will come to the best organized forces. British Columbia, Nova Scotia and Ontario will meet in competition within our own borders, and without organization among the apple growers many of the worst features of competitive buying and selling will be intensified. A frank recognition of the community of interests in these three provinces, at least, will go far to insuring the continued prosperity of the apple industry, notwithstanding greatly increased production. This happy state of affairs can only come about by a thorough organization of the growers in each province. It is apparent, therefore, that Nova Scotia with her fairly efficient organization is vitally interested in the thorough co-operative organization of British Columbia and Ontario, and just as each province is interested in the thorough organization of all others, so communities that have the advantage of local associations, are vitally interested in having every other part of the province equally well organized.

For this purpose each local association should devote a certain percentage of its returns to the educational or propaganda fund, and every effort should be made to plan carefully the expenditure of this fund. Co-operative marketing will not show its full effect until the apple growers of the Dominion are organized from the Atlantic to the Pacific.

APPENDICES.

The forms for Constitution and By-laws given in Appendix I are simply suggestive. Local conditions should be consulted. In matters of detail considerable latitude may be allowed to personal prejudices, within the limits of the governing legislation. There are usually many ways of accomplishing the same object, and any rigid adherence to a set of words or to a particular method is likely to introduce friction. As far as possible it is recommended, of course, that the co-operative features be safeguarded.

Attention is directed to the By-laws of the Forest Fruitgrowers' Association. They are simple, direct and have worked satisfactorily. The By-laws and Constitution of the Norfolk Fruitgrowers' Association are quite suitable for most small associations which are confined exclusively to apple selling. The Constitution and By-laws of the Island & Gypsum Fruit Company contain features that will be of interest to associations that intend to have mixed shipments of fruit, and where the output from the different members varies greatly in quantity.

Special attention is directed also to the model by-laws recommended by the Department of Agriculture for Ontario. It will be noted that clauses 26 to 24 provide a very convenient mechanism for raising money on capital account. If this mechanism is adopted, and if the association is organized under the general clause of the Company's Act for Non-Share Capital Stock Associations, there is no reason why Ontario associations should not be strictly co-operative, that is, the by-laws might ensure a fixed remuneration for capital, one man, one vote (there would be no shares) and the distribution of any surplus on the basis of the value of the business done by the member of the association. This device, although not so convenient nor so safe as the best co-operative legislation of European countries is yet better than that of any of the other provinces. Guarantee notes, however, may be adopted in any of the provinces in lieu of share capital.

APPENDIX I.

NORFOLK FRUIT GROWERS' ASSOCIATION.

CONSTITUTION AND BY-LAWS.

1. This Association shall be known as the Norfolk Fruit Growers' Association.
2. The object of this Association shall be to encourage the Fruit Growers in the County of Norfolk who are interested in the improvement of the quality and quantity of Fruit, to co-operate for the purpose of securing a better and more uniform system of packing and marketing of their Fruits.
3. Any person in the County of Norfolk in the fruit-growing industry and is recommended by the Executive Committee, may become a member by paying to the Secretary-Treasurer the sum of One Dollar, on or before the First day of April in any year, and such payment shall entitle such person to all the rights and privileges of membership the ensuing year.
4. The Annual Meeting of the Association shall be held on the first Wednesday in February of each year, at such place as the Association may select. The Business of the Annual Meeting shall be the receiving and disposing of the Auditor's Annual Report upon the business of the preceding year, the Annual Election of Officers and such other business as may be brought forward by the Executive Committee.
5. All elections shall be by ballot, plurality electing, and shall be conducted by two scrutineers appointed by the chairman.
6. At the Annual Meeting five members shall be elected as an Executive Committee who will have the general management of the Association in buying, selling and any other business of importance. At any meeting of the Executive Committee, three shall constitute a quorum for the transaction of business. Two Auditors shall also be elected at the Annual Meeting who are not members of the Executive Committee. Three members, not members of the Executive Committee shall also be elected at the Annual Meeting as Investigation Committee, whose duty it will be to investigate all complaints.
7. Special meetings of the Association may be held at any time upon call of the President, by written notice mailed to each member at least five days before the meeting.
8. Special meetings shall also be called by the President, whenever required to do so in writing, by five per cent or more in number of the members of the Association.
9. At any meeting of the Association 15 per cent in number of the members shall constitute a quorum for the transaction of business.
10. The Officers of the Association shall consist of a President, a Vice-President who shall be chosen by the Executive Committee from among themselves, at the first board meeting after the Annual Meeting, the Manager and Secretary-Treasurer to be appointed by the Executive Committee. Special meetings of the Executive Committee may be held at such times and places as they may select.
11. The President, or in his absence, the Vice-President, shall preside at all meetings of the Association. In the absence of both, a chairman shall be chosen from the members present.
12. The Manager and Secretary-Treasurer for the Association shall have charge of the business in detail, but cannot close any dealings unless authorized to do so by the Executive Committee.
13. It will be the duty of each member to so care for his orchard as to produce the very best quality of fruit.

14. All good barreling apples grown by members of the Association (excepting for their own use) are to be handled by the Executive Committee, and any member disposing of his or her own apples shall pay to the Association the sum of 50 cents per barrel.

15. All members must pack their fruit for shipment in a neat workmanlike manner, and if any member is not capable of packing his apples in this manner he is to employ an expert packer and all fruit must be packed in accordance with the rules of the Norfolk Fruit (Growers' Association having each member's name or number on every package. Empty barrels must be kept in the dry and also all packed barrels must be placed in the dry every day in a well ventilated building until shipment is made.

16. Each member must order from the Secretary all the barrels he will require for his own use not later than August 1st of each year, same to be paid for by him not later than November 10th.

17. Any member persisting in injurious conduct towards the Association or any of its officers may be suspended by the Investigation Committee until same has been submitted to the next general meeting and each offending member shall receive three days' notice of such a meeting, and the members present have the power of expelling such member or otherwise, as they see fit.

18. The books of the Association shall be audited before the date of the annual meeting in each year, and the report of the receipts and disbursements, properly signed, shall be read at such annual meeting. The members may order a special audit of the books to be made at any time, and the Auditors shall report thereon without unnecessary delay.

19. When from any cause a vacancy occurs in any of the offices of the Association, it shall be filled by the Executive Committee at their next meeting. Absence without leave from three consecutive meetings of the Executive Committee shall create a vacancy.

20. The Secretary-Treasurer shall keep a record of the proceedings of all meetings of the Association, or its Executive Committee, of all receipts and disbursements, and he shall report the condition of the finances annually or as often as the Executive Committee shall desire. He shall also attend to the correspondence of the Association and keep same on file.

21. Every dispute between members and the Association, or any person claiming through or under a member, or under the rules of the Association, and the Executive Committee, Treasurer, or other officers thereof, shall be decided by arbitration in the manner following: The party complaining shall make a statement in writing of the matter complained of or in dispute, and shall therein name the person he appoints as Arbitrator, and shall place such statement in the hands of the Secretary of the Association. Within ten days of the receipt of such statement the President shall name a second Arbitrator, unless he is a party to the dispute in which case the Executive Committee will appoint a second Arbitrator. The two Arbitrators will meet and appoint a third Arbitrator, and the Arbitrators so appointed shall meet without unnecessary delay and hear and determine the matter in dispute, and file an award with the Secretary of the Association, which award if signed by at least two of the Arbitrators, shall be binding and conclusive on all parties without appeal. Nothing herein contained shall be construed to prevent both parties agreeing upon one Arbitrator, whose decision in such case would be final. All Arbitrators appointed under this Section must be members of the Association.

22. These rules may be amended at any regular or special meeting by a vote of the members present. Notice of any proposed amendment must be given each member by letter or otherwise at least five days previous to the meeting.

THE FOREST FRUIT GROWERS AND FORWARDING ASSOCIATION.

CONSTITUTION.

1. This Association of Fruit Growers shall be known as 'The Forest Fruit Growers and Forwarding Association.'
2. The object of the Association is the better production and sale of fruit grown by its members.
3. The Annual Meeting of the members of the Association shall be on the first Monday in December in each year. Special Meetings may be held at any time upon the call of the President by written notice.
4. At the Annual Meeting the Directors of the Association shall be elected.
5. At any meeting of the Directors a two-thirds representation of the Directors shall constitute a quorum for the transaction of business.
6. The Officers of the Association shall consist of a President, Vice-President and Secretary-Treasurer.
7. Immediately after the Annual Meeting and the election of Directors it shall be the duty of the Directors to elect Officers as named in by-law six, the President and Vice-President to be chosen from the Directors.
8. The President or in his absence the Vice-President shall preside at all meetings of the Association. In the absence of both a presiding officer shall be chosen from those present.
9. The Secretary-Treasurer shall keep a record of the proceedings of all meetings of the Directors and the Association. He shall also keep a record of all the receipts and disbursements of the Association.
10. Any Fruit Grower within a radius of eight miles of Forest shall be eligible to become a member by a two-thirds vote of the Directors of the Association.
11. The constitution or by-laws may be amended at any regular or special meeting upon a two-thirds vote of the Directors.

THE FOREST FRUIT GROWERS AND FORWARDING ASSOCIATION.

BY-LAWS.

1. The Board of Directors shall meet semi-monthly or monthly or at the call of the President, such meetings not later than July 1st of each year.
2. It shall be the duty of all officers to attend regular or special meetings of the Association and hold office until their successors shall be elected.
3. When a vacancy shall happen by death or resignation in any of the offices, it shall be filled at the next regular or special meeting.
4. At the annual meeting of the Association in each year the President shall render a statement of the business of the season in full.
5. Each and every member of the Association shall pick his fruit in prime condition and deliver same at Packing House or shipping point.
6. An Inspector or Manager of the Association shall be appointed by the Directors to supervise the work of grading and packing of the fruit of the Association, the salary of the said Inspector to be determined at the time of appointment.
7. The Manager shall give personal instructions in their orchards to every shipper shipping through the Association how to grade and mark their fruit according to the Fruit Marks Act.
8. That he will see to the ordering of and securing of cars, and will obtain whatever necessary Refrigerator cars, which he sees are properly iced.
9. He shall keep in constant communication with the Salesman, and shall receive orders and communicate them to the members of the Association.
10. He shall see to the making up of Car Lots and notifying members when to pack and deliver fruit at Packing House or shipping point.

11. He shall keep a record of name and grade of fruit of each shipper in each car and forward a copy to purchaser.

12. He shall also inspect a certain number of each shipper's barrels in each car and immediately before shipment in order to ascertain if the Fruit Marks Act has been carried out, and if he finds that any shipper has intentionally disobeyed the Fruit Marks Act he shall be refused acceptance of fruit and held responsible for space in car.

13. It is agreed that shipper shall be responsible for space ordered in car whether he fills it or not.

14. If the Inspector disagrees with shippers regarding grade apples, for the settlement of such disagreement he shall choose one Director, the shipper one Director and both jointly any disinterested person, who shall decide, basing their decision on the Fruit Marks Act.

15. All charges for icing cars to be paid before car leaves, such charges to be collected by a levy on each barrel the car contains.

16. Each and every member shall have the right to give away such fruit of his own raising as he may elect, but he shall not make sale of fruit outside the Association except windfalls and cull grades or any fruit that may not be accepted by the Association. Any member so doing shall pay into the Association treasury the sum of 50 cents per barrel for all fruit so sold excepting grades aforesaid.

17. Whenever in the opinion of the Directors it is impossible for the Association to receive at its packing house all fruit grown by its members, they may permit individual members to grade and pack the same for shipment through the Association, such grading and packing to be subject to the inspection of the Inspector appointed by the Association.

18. All members of the Association shall spray their orchards at least four times and as often beyond that as they deem proper.

19. No fruit grower shall be admitted as a member of the Association except by a two-thirds vote of the Directors.

KELOWNA FARMERS' EXCHANGE (LIMITED).

CONSTITUTION AND BY-LAWS.

1. The object of the Kelowna Farmers' Exchange is the marketing of all kinds of produce grown by the Members of the Exchange.

2. The points of shipment for the produce shall be decided upon by Members of the Exchange.

3. At the Annual Meeting the Members shall elect a board of 5 (five) Directors, who shall at their first meeting elect the President, Vice-President, and 2nd Vice-President from their number.

4. The Directors shall be elected annually by ballot and shall hold office for one year unless removed for cause.

5. Any Director may be removed from office at any time for any cause when two-thirds majority of the Members of the Exchange consider the removal of such Director in the best interests of the Exchange. In the event of such removal of a Director, the vacancy so made shall be filled by the election of another Director by ballot at the same meeting, for the unexpired term of office.

6. The general work of the Exchange shall be carried on by a Secretary, chosen by the Directors, whose work shall be the general management of the Exchange, the soliciting of orders, over-seeing the receiving of produce and inspecting the same, loading of cars for shipment, keeping of accounts, and shall receive all sums of money due or payable to the Exchange, and shall deposit all moneys received in some chartered Bank, approved of by the Board of Directors; no payment to be made without the written order of the Secretary-Treasurer and the President, or in the case of his absence, of

the Vice-President, or in his absence of the 2nd Vice-President; give due notice of all meetings of the Association and of Board of Directors; keep a record of all proceedings of same; write all letters in the name of the Association and conduct its correspondence; shall keep copies of the same in a book to be provided for the purpose.

7. That the books of the exchange be open to inspection of Directors at all times, and one specified day of the week to ordinary members.

8. The Secretary shall be required to give bonds to an amount satisfactory to the Board of Directors.

9. Each member shall have a number or mark, which shall be placed on every sack, box, crate, or other parcel or thing shipped by him. The Directors shall decide how such mark shall be placed.

10. All produce for shipment shall be inspected before shipment, and if any produce is not good quality and in good condition for shipping, such produce shall be sorted or otherwise prepared for shipment at the expense of the party to whom such produce belongs.

11. A fund shall be created by assessment on each sale to cover all losses by frost, transportation, or bad debts, or any other cause, not due to the shipper.

12. Payment for produce will be made to the shippers on the receipt by the Exchange of returns for the sale of their produce, unless otherwise ordered by the full Board of Directors.

13. In case of there being more of a certain class of produce on hand than the orders for such produce for the time being demand, each member shall, as far as the proper filling of orders and convenience of shippers will permit, ship proportionate amounts.

14. No Member's claim for shipment of produce shall be considered unless such produce shall be delivered at the determined point of shipment, has been inspected and found fit for shipment, or has been prepared for shipment as provided for in rule 10.

15. The standard of quality required in produce and the condition in which it is to be delivered for shipment, including the kind and quality of the sacks, crates, boxes, or other packages used, shall be decided by the Board of Directors.

16. The amount of salary to be paid to the Secretary appointed under Rule 7, shall be decided by the Board of Directors.

17. Three members of the Board of Directors shall form a quorum.

18. Any member of the Exchange obstructing the work of the Exchange, causing loss or inconvenience, may be suspended by the Secretary until such question shall have been dealt with by the Board of Directors. Any member agreeing with the representative of the Exchange or the Board of Directors on the price he will take for any certain produce shall not dispose of it at another price unless he first gives to the Exchange the refusal of the same.

19. All complaints must be made in writing to the Board of Directors.

20. Two Auditors shall be elected annually who shall audit the books and accounts of the Exchange at the end of the shipping season, or oftener if required by the Board of Directors.

21. The value of each share in the Kelowna Farmers' Exchange shall be \$5, and each member shall subscribe for not less than one share.

22. A meeting of Shareholders shall be called at any time to give the price which they are prepared to accept for their produce, and in no case shall it be deviated from unless the Board of Directors see it is in the interests of all parties to do so.

23. The expense of the Exchange shall be met by a percentage on returns for produce sold by the Exchange, the amount of such percentage to be decided by the Board of Directors.

24. A two-thirds majority vote of the members of the Exchange shall over-rule any action or decision of the Directors, and any member may appeal from the decision of the Board of Directors to the Members of the Exchange. In such case the decision of the Board of Directors shall be final.

25. Any changes to these rules may be made by a two-thirds majority vote of the members of the Exchange, taken at a meeting called to consider such change, of which at least ten days' notice shall be given.

25 (a) A majority of the stock subscribed, upon which all legal calls or assessments are paid in full, shall constitute a quorum at any Shareholders' meeting, and no vote shall be counted which is not represented by one share of stock upon which all calls or assessments have been paid.

25 (b) The Directors shall have power to levy and collect assessments on the capital stock, the same to become delinquent in thirty days from day of notice in local paper of such assessment. The Directors may sell such delinquent stock at public auction to the highest bidder for cash, first giving thirty days' notice of such sale in a local newspaper, such sale to be made at the door of the office of the Exchange.

25 (c) That no dividend of more than 5 per cent be paid on the stock of the Exchange, any surplus funds to be applied to the running expenses of the Exchange.

25 (d) The President or Chairman shall vote upon all business, and shall have no casting vote or dual vote.

26. The annual meeting of the Kelowna Farmers' Exchange shall be held on the first Monday in January in each year.

CONSTITUTION AND BY-LAWS OF THE ISLAND AND GYPSUM FRUIT COMPANY, INCORPORATED UNDER THE LAWS OF OHIO. CAPITAL STOCK, \$5,000. ACT AMENDED JUNE 13TH, 1900.

CONSTITUTION.

Section 1. This association of fruitgrowers, being incorporated under the laws of Ohio, shall be known as the Island and Gypsum Fruit Company, its capital stock being in the sum of \$5,000.

Section 2. The object of its organization is for the sale of the fruits grown by its members, also to buy and sell such fruits during the season as opportunity presents.

Section 3. The annual meeting of the stockholders of this company shall be on the first Saturday in December of each year. Special meetings of the stockholders may be held at any time upon the call of the President by written notice mailed to each stockholder of record.

Section 4. At the annual meeting of the stockholders five Directors shall be elected.

Section 5. At any meeting of the stockholders a two-thirds representation of the stock, either in person or by written proxy, shall constitute a quorum for the transaction of business.

Section 6. The officers of the company shall consist of a President, Vice-President, Secretary and Treasurer.

Section 7. Immediately after the annual meeting of the stockholders and Directors are elected, it shall be the duty of the Directors to elect the officers as named in Section 6.

Section 8. All elections of this company shall be by ballot, plurality electing, conducted by two tellers, appointed by the President.

Section 9. The President, or in his absence, the Vice-President, shall preside at all meetings of the stockholders. In the absence of both, a presiding officer shall be chosen by the stockholders.

Section 10. The Secretary shall keep a record of the proceedings of all the meetings of stockholders and directors, and shall receive as remuneration the sum of \$ for each and every meeting, when such services shall be duly rendered by said Secretary.

Section 11. The Secretary shall keep a correct record of all the receipts and disbursements and report the condition of the finances annually, or as often as the Directors shall desire.

Section 12. The Directors may select not to exceed three of their number to act as an Executive Committee (the President to serve as Chairman of this Executive Committee), to have general charge of the affairs of the corporation during the fruit season. This committee shall order all purchases of supplies. The Directors shall regulate the amount of compensation this committee shall receive.

Section 13. Any fruit grower in Ottawa County, this State, shall be eligible to become a member by a two-thirds vote of the stockholders of record at the time the application is made, also, a two-thirds vote of members shall determine the value of each share of the stock that such party shall pay into the treasury, if he or she shall be admitted as a member.

Section 14. The Constitution or By-laws may be amended at any regular or special meeting upon a vote of two-thirds of the stockholders or stock in the affirmative.

BY-LAWS.

Article 1. The Board of Directors, during any season when there is not a failure of fruit, shall meet in session semi-monthly, beginning such meetings not later than July 15th of each year.

Article 2. The Executive Committee during the fruit season of each year, shall meet at least once a week, or oftener if the interests of the company shall demand.

Article 3. The President shall have a general supervision of the business of the company.

Article 4. On or before the first of May of each year, when the fruit crop is not a failure, the Directors shall meet and name their Manager for the season.

Article 5. The Manager shall have charge of the business of the company in its detail, under the supervision of the President.

Article 6. Manager and Treasurer shall give bonds in such a sum as shall be acceptable to the Directors.

Article 7. The Treasurer shall receive all moneys from the Manager and deposit the same in such bank to the credit of this company. Such depository of the funds to be designated by the Directors. The Treasurer shall check the same upon order from the President, countersigned by the Manager, or upon order from Manager, as may be directed by the Directors.

Article 8. It shall be the duty of all officers to attend all regular and special meetings of the company, and to hold office until their successors shall have been elected.

Article 9. When a vacancy shall happen, either by death or resignation in any of the offices established by the constitution or by-laws of the company, it shall be filled at the next regular or special meeting.

Article 10. At the annual meeting of the stockholders each year, the Manager shall render a statement of the business for the season in full.

Article 11. Any member of the company may withdraw at any time, between December or the first day of April. Such notice of withdrawal must be given in writing to the President or any Director of this company. Thereafter it shall be the privilege of such retiring member to sell and dispose of his or her fruits as they shall elect, but this company shall not take or handle any of such member's fruit thereafter, during that season, unless it shall be determined by a two-thirds vote of all members in the affirmative.

Article 12. In consideration of the several assessments which have been placed upon the present stock of record, previous to 1900, to each and every member holding such stock there shall be issued (gratis) another share (\$50.00) for every share so held.

Every member shipping not more than 5,000 bushels of fruit shall hold two shares (\$100.00) of the capital stock for increased output, as follows:—

- 1 share for all over 3,000 bushels up to 5,500.
- 1 share for all over 5,000 bushels up to 8,500.
- 1 share for all over 8,500 bushels up to 12,000.
- 1 share for all over 12,000 bushels up to 16,000.
- 1 share for all over 16,000 bushels up to 20,500.
- 1 share for all over 20,500 bushels up to 25,500.
- 1 share for all over 25,500 bushels up to 31,000.

Article 13. The stock shall pay a dividend of 7 per centum, less incidental expenses, as repairs, insurance on buildings and taxes. This 7 per centum shall be collected from each member's fruit account in proportion to the number of bushels of fruit with which each has been credited.

Article 14. Dividends on stock, as provided for in the preceding article, shall not apply in time of a failure of fruit crop. In such times dividends shall be void.

Article 15. No transfer of stock shall be lawful unless duly recorded upon the books of the company.

Article 16. All peaches, pears, plums and quinces grown by each and every member of this company shall be delivered to the company's packing house for grading, packing and shipment.

Grapes and other small fruits may be delivered to the company for sale or disposal, and shall be disposed of for the grower on commission of one cent per basket.

Article 17. Each and every member shall pick his fruit in prime condition and deliver same promptly to the company's packing house. In case green and immature fruit or overripe fruit, or windfalls, be delivered by any member, same may be accepted and said members shall be credited with average price such fruit may bring.

Article 18. Each and every member shall have the right to give away such fruit of his own raising as he or she may elect; but shall not seek, solicit or make sale of fruit outside of the company, excepting windfalls and cull grades of any fruit that may not be accepted by the company. Any member so doing shall pay into the company's treasury the sum of fifty cents per bushel for all such fruit sold, excepting sales of aforesaid grades.

Article 19. All fruit delivered each day shall be credited to the person furnishing the same at the average price which the fruit brought that day.

One-third of the amount so credited may be retained by the company until the close of the season for final settlement, and from the aggregate of the amount so retained from each person there shall be, at the end of the season, before paying the same over to the respective members of the company, deducted all expenses and losses. All expenses of handling, packing and marketing fruit shall be borne by the several members of the company, in proportion to the number of bushels of fruit with which each has been credited. All losses and rebates shall be deducted in proportion to the money credit of each member.

Article 20. Whenever, in the opinion of the Directors it is impossible for the company to receive at its fruit house all the peaches grown by its members, they may permit individual members to grade and pack the same for shipment through the house, such period to be limited by the Directors. Reasonable compensation will be allowed for such grading and packing.

Article 21. Permanent or temporary additions, extensions or any new buildings from time to time that may be constructed by the company including the present ice house, the cost of same shall be paid by the stock of issue by a fund sufficient to meet such costs by an assessment upon the said stock as it shall appear against each and every member, and not as an item of general expense.

Article 22. The cost of ice and cost of putting same into ice house as it now stands, and each and every season when the said ice house shall be filled, shall go into the general expense and be paid for as named in Article 19 of the By-laws.

Article 23. Before the annual meeting, as named in Section 3 of the Constitution, if there shall be available funds in the treasury after all debts shall have been paid, the Board of Directors then, if in their opinion it shall be deemed best, can order a cash dividend to be declared and paid to each stockholder of record up to the first day of December of each year.

FORM RECOMMENDED FOR ONTARIO.

This set of by-laws was prepared by the District Representatives of the Ontario Department of Agriculture, in consultation with the Managers of Co-Operative Associations. They have been approved by the Department of Agriculture and the Provincial Secretary's Department:—

1. This Association shall be known as the.....Marketing Association.
2. The objects of the Association are for the production, grading and selling ofproducts by its members, to purchase supplies, packages, machinery, etc., to buy and sell such other.....products during the season as opportunity presents itself, and to erect, buy, sell, own and control buildings and other materials as needed in its business.
3. The annual meeting of the Association shall be held on.....in..... in each year.
4. Notice of the annual meeting shall be given each member in writing by the Secretary not less than one week previous to the date of the meeting.
5. Special meetings may be held at any time upon call of the President by written notice mailed to each member five days before the meeting. Special meetings shall be called by the President whenever required to do so in writing by any ten members.
6. At any meeting of the Association, ten members shall constitute a quorum for the transaction of business.
7. At the annual meeting a Board of.....Directors shall be elected, of whom.....shall constitute a quorum at any Board meeting.
8. The officers shall consist of a President, Vice-President and a Secretary.
9. The officers shall be chosen by the Directors from among themselves at the first Board meeting after the annual meeting.
10. At the annual meeting two auditors shall be elected.
11. All the elections shall be by ballot, plurality electing, conducted by two scrutineers appointed by the Chairman.
12. The Board of Directors shall employ a business Manager, who shall also act as Treasurer of the Association. The business Manager shall not be a member of the Board of Directors.
13. The President shall preside at all meetings. He shall call meetings of the Board of Directors and members when necessary, and shall advise with and render such assistance to the Manager as may be in his power. In his absence, the Vice-President shall have and exercise all rights and powers of the President.
14. The Secretary shall keep a record of the proceedings of all meetings and of all receipts and disbursements, and report the condition of the finances annually, or as often as the Directors shall desire.
15. The Manager shall have charge of the business in detail, under the direction of the Board of Directors.
16. The Manager and Treasurer and Secretary shall give bonds in such sums as may be acceptable to the Association.
17. The Directors may select three of their number to act as an Executive Committee (the President to serve as Chairman), to have general charge of the affairs of the Association.

18. When a vacancy shall occur through any cause in any of the offices established by the by-laws of the Association, it shall be filled at the next regular or special meeting.

19. The annual dues of this Association shall be.....payable on or before the date of the annual meeting.

20. Each member at the time of uniting with the Association shall give a promissory note, payable on demand, to the Association, for the sum of.....dollars, and an additional.....for each and every.....owned by the member at the time of joining the Association, but in no case shall the promissory note be for less a sum than.....dollars.

21. At the time of uniting with the Association and at the end of each three years after the incorporation of the Association, and not less than ten days previous to the date of the next annual meeting, each member shall file with the Secretary a true statement of the number of.....owned by the member at that time.

22. Within two weeks after the annual meeting at the end of each third year the Directors shall require each member to sign a promissory note payable on demand to the Association, of the sum of.....dollars, and an additional.....for each and every.....owned by the member at that time, but in no case shall the promissory note be for a less sum than.....dollars. In consideration for the same the Secretary shall deliver over to the member the note previously given by the member, duly cancelled and stamped with the seal of the Association.

23. The notes of the members shall be the property of the Association and shall be used by the Directors as collateral security with which to secure needed capital for the transaction of the business of the Association.

24. Whenever the notes of any of the members are deposited as security for a debt, all the members shall individually share the liability in proportion to the value of the note given to the Association by each member.

25. All the surplus moneys in the possession of the Association to be divided amongst the members shall be proportioned to each member on the basis of the value of the business done by the member with the Association.

26. Any.....producer in.....county shall be eligible to become a member by a two-thirds vote of the members at the time the application is made.

27. All.....produced for sale by the members and acceptable to the Manager shall be delivered to the Association as directed by the Directors, and in prime condition for grading, packing and shipping. Other.....products may be delivered for sale as determined by the Directors.

28. The books of the Association shall be audited before the date of the annual meeting each year. At this meeting a printed statement of the receipts and expenditures as audited shall be presented to each member.

29. These by-laws may be amended at any regular or special meeting by a two-thirds vote of the members present in the affirmative. Notice of such amendments must be given each member by letter at least five days previous to the meeting.

30. Any member having a grievance or cause of complaint as to treatment of his.....or.....by the Association, may appeal to the Directors.

APPENDIX B.

The following is a list of the co-operative associations operating in Canada, corrected to date:—

Prince Edward Island—

The Co-operative Fruit Co., Charlottetown.

Nova Scotia—

Auburn Fruit Co., Auburn.
 Aylesford Fruit Co., Aylesford.
 *Bear River, Bear River.
 Berwick Fruit Co., Berwick.
 Blomidon Fruit Co., Blomidon.
 Bridgetown Fruit Co., Bridgetown.
 *Brookland Fruit Co., Lawrencetown.
 Canard Fruit Co., Hillaton.
 Central Fruit Co., Clarence.
 Clarence Fruit Co., Clarence.
 Cornwallis Fruit Co., Waterville.
 Enterprise Fruit Co., Clarence.
 Grand Pré Fruit Co., Grand Pré.
 Granville Fruit Co., Upper Granville.
 Kentville Fruit Co., Kentville.
 Kingsport Fruit Co., Kingsport.
 Kingston Fruit Co., Kingston.
 *Lawrencetown Fruit Co., Lawrencetown.
 Maple Leaf Fruit Co., Canning.
 May Flower Fruit Co., Kingsport.
 Middleton Fruit Co., Middleton.
 New Minas Fruit Co., Sunnyside.
 Paradise Fruit Co., Paradise.
 Pleasant Valley Fruit Co., Berwick.
 Port Williams Fruit Co., Port Williams.
 Round Hill Fruit Co., Round Hill.
 S. B. Chute Fruit Co., Berwick.
 Sheffield Mills Fruit Co., Sheffield Mills.
 South Farmington Fruit Co., South Farmington.
 Starr Fruit Co., Paradise.
 *Union Fruit & Produce Co., Williamston.
 Waterville Fruit Co., Waterville.

Quebec—

Abbotsford Fruit Growers' Society, Abbotsford.
 Havelock Fruit Growers' Co-operative Association, Havelock.
 Société Co-opérative Agricole des Fruitières de Saint Hilaire, St. Hilaire.
 Société Co-opérative Agricole de Kamouraska, Ste. Anne-de-la-Pocatière.
 Société Co-opérative de Pomologie de St. Joseph-du-Lac, St. Joseph-du-Lac.
 Société Co-opérative Agricole de Rougemont, St. Michel de Rougemont.

* All these societies, with the exception of those marked with an asterisk, are members of the United Fruit Companies Limited, of Nova Scotia, Berwick, N.S.

Quebec—Concluded.

Société Co-opérative Agricole des Producteurs de Fruits de Rouville, St. Michel de Rougemont.

Société Co-opérative Agricole et Horticole du Comte de Beloeil, St. Valier Station.

***Ontario—**

Alvinston F. G. A., Aughrim.
 Ancaster F. G. A., Hamilton.
 Arkona F. G. A., Arkona.
 Brant F. G. A., Burford.
 Brant Packing F. A., Burford.
 Brighton Co-operative F. G. A., Brighton.
 Burgessville F. G. A., Burgessville.
 Burlington F. G. A., Burlington.
 Byron F. G. A., Tambling Cornera.
 Caradoc F. G. A., Falconbridge.
 Chatham F. G. A., Chatham.
 Clarkson F. G. A., Clarkson.
 Cobourg F. G. A., Baltimore.
 Durham F. G. A., Port Hope.
 Forest F. G. A. & Forwarding Co., Forest.
 Georgetown Co-operative Association, Georgetown.
 Georgian Bay Fruit Growers' Assn., Ltd., Thornbury.
 Glencoe F. G. A., Appin.
 Gore F. G. A., Norwich.
 Grafton F. G. A., Wicklow.
 Granton F. G. A., Granton.
 Hagersville F. G. A., Hagersville.
 Hatchley Station F. G. A., Hatchley Station.
 Haldimand F. G. A., Dunnville.
 Huron F. G. A., Goderich.
 Ilderton F. G. A., Ilderton.
 Inwood F. G. A., Inwood.
 Johnson F. G. A., Forest.
 Jordan Co-operation Assn., Jordan.
 Lambton F. G. A., Sarnia.
 Milton F. G. A., Milton.
 Mount Nemo F. G. A., Nelson.
 Newcastle F. G. A., Newcastle.
 Norfolk F. G. A., Simcoe.
 North Brant F. G. A., Cainsville.
 Northumberland Co-operative F. G. A., Brighton.
 Ontario & Western Co-operative F. G. A., Grimsby.
 Orono F. G. A., Orono.
 Oshawa F. G. A., Oshawa.
 Owen Sound F. G. A., Owen Sound.
 Oxford F. G. A., Oxford Centre.
 Pelham F. G. A., Fonthill.
 Port Burwell F. G. A., Vienna.
 Prince Edward F. G. A., Wellington.
 Simcoe Fruits Limited, Barrie.
 Sparta F. G. A., Sparta.

* Nearly all these Ontario associations are members of the Co-operative Fruit Growers of Ontario, Limited, Toronto.

Ontario—Concluded.

St. Catharines Cold Storage & Forwarding Company, St. Catharines.
 Tillsonburg F. G. A., Tillsonburg.
 Wallaceburg F. G. A., Wallaceburg.
 Wardsville F. G. A., Wardsville.
 Watford F. G. A., Watford.
 Welland F. G. A., Marshville.
 Wentworth F. G. A., Hamilton.
 Winona F. G. A., Winona.
 Wyoming F. G. A., Wyoming.

British Columbia—

Creston Fruit Union, Creston.
 Grand Forks F. G. A., Grand Forks.
 Hammond F. G. Union, Hammond.
 Hatzic F. G. A., Hatzic.
 Kelowna Farmers' Exchange, Kelowna.
 Kootenay Fruit Growers' Union, Nelson.
 Mission District F. G. A., Mission.
 Okanagan Fruit Union, Ltd., Vernon.
 Salmon Arm Farmers' Exchange, Salmon Arm.
 Vernon Fruit Co., Vernon.

APPENDIX 3.

The following statistics have been compiled by the Extension of Markets Division.

TABLE NO. 1.

APPLES exported from Canada in the years 1895 to 1911 inclusive.

Crop Year.	Fiscal Year.	Great Britain.	United States.	Other countries.	Total.	Total Value
		Brls.	Brls.	Brls.	Brls.	\$
1894.....	1895.....	731,238	86,841	15,195	833,274	1,831,408
1895.....	1896.....	504,680	54,088	8,440	567,188	1,410,470
1896.....	1897.....	1,579,272	54,348	20,450	1,654,070	2,502,506
1897.....	1898.....	414,181	7,988	17,304	439,473	1,301,681
1898.....	1899.....	972,125	81,304	21,789	1,075,098	2,621,302
1899.....	1900.....	894,825	28,589	28,984	952,498	2,070,238
1900.....	1901.....	643,045	12,562	22,304	677,911	1,482,927
1901.....	1902.....	480,338	17,162	8,715	506,215	1,568,408
1902.....	1903.....	973,805	6,084	20,689	1,000,578	2,758,724
1903.....	1904.....	1,512,744	14,889	69,971	1,597,604	4,500,708
1904.....	1905.....	986,222	16,784	34,143	1,037,149	2,637,467
1905.....	1906.....	1,020,418	44,651	144,085	1,217,594	4,083,482
1906.....	1907.....	933,789	5,281	28,811	977,981	2,034,608
1907.....	1908.....	1,490,311	111,042	27,777	1,629,130	4,822,584
1908.....	1909.....	1,048,285	18,209	24,482	1,091,086	2,804,087
1909.....	1910.....	1,822,901	48,272	32,304	1,903,477	4,417,828
1910.....	1911.....	474,190	16,883	20,545	511,618	1,786,884
1911.....	1912.....	1,481,483	16,580	172,080	1,664,143	5,104,107

* 9 months.

NOTE.—The foregoing statistics relate entirely to the export trade and heretofore we have been in the habit of taking these figures as a criterion for the progress of the apple industry. In our future calculations, however, we must remember that there has been a great expansion in our home markets—notably in Western Canada—within recent years and that our domestic trade in apples is now a factor of great and growing importance.

TABLE NO. 2.

Exports of Canadian Apples by periods for the Years 1906-07 to 1911-12, inclusive.

Year.	From July 1st to Sept. 30.	Per cent of Total Trade.	From Oct. 1st to Dec. 31.	Per cent of Total Trade.	From Jan. 1st to June 30.	Per cent of Total Trade.	Total for Twelve Months.
	Brls.		Brls.		Brls.		
1906-7.....	8,676	0.88	617,901	62.15	267,620	26.97	984,306
1907-8.....	6,645	0.40	690,787	40.13	978,990	59.47	1,646,431
1908-9.....	33,743	3.18	739,774	69.26	294,534	27.59	1,068,051
1909-10.....	13,545	0.83	1,652,368	65.04	532,109	34.13	1,818,020
1910-11.....	12,309	2.45	821,836	64.08	168,233	33.49	502,778
1911-12.....	98,407	5.72	1,659,420	61.65	560,426	33.63	1,718,253

NOTE.—The intention of the above table is to divide the exports into three periods that will synchronise with the three main divisions of the crop, viz., Early, Fall and Winter apples. Of course the last two divisions particularly are not clear cut as winter varieties may be shipped before the end of the year and fall varieties may be carried over into January. The tabulation is interesting, however, in that it shows the heavy volume of exports during October, November and December—equal to two-thirds of the total trade—and the growth of the export trade in early apples.

TABLE No. 3.

Average Yearly Exports of Apples from Canada and the United States in Five Year Periods from 1893 to 1912.

Period.	Average Yearly Exports.	
	Canada.	United States.
	Years ended June 30, '98 to '06. " " March 31, '07 to '12.	Years ended June 30.
	Brls.	Brls.
1893-1897.....	910,164	633,656
1908-1902.....	733,162	571,128
1903-1907.....	1,166,363	1,594,518
1907-1912.....	1,302,609	1,200,198

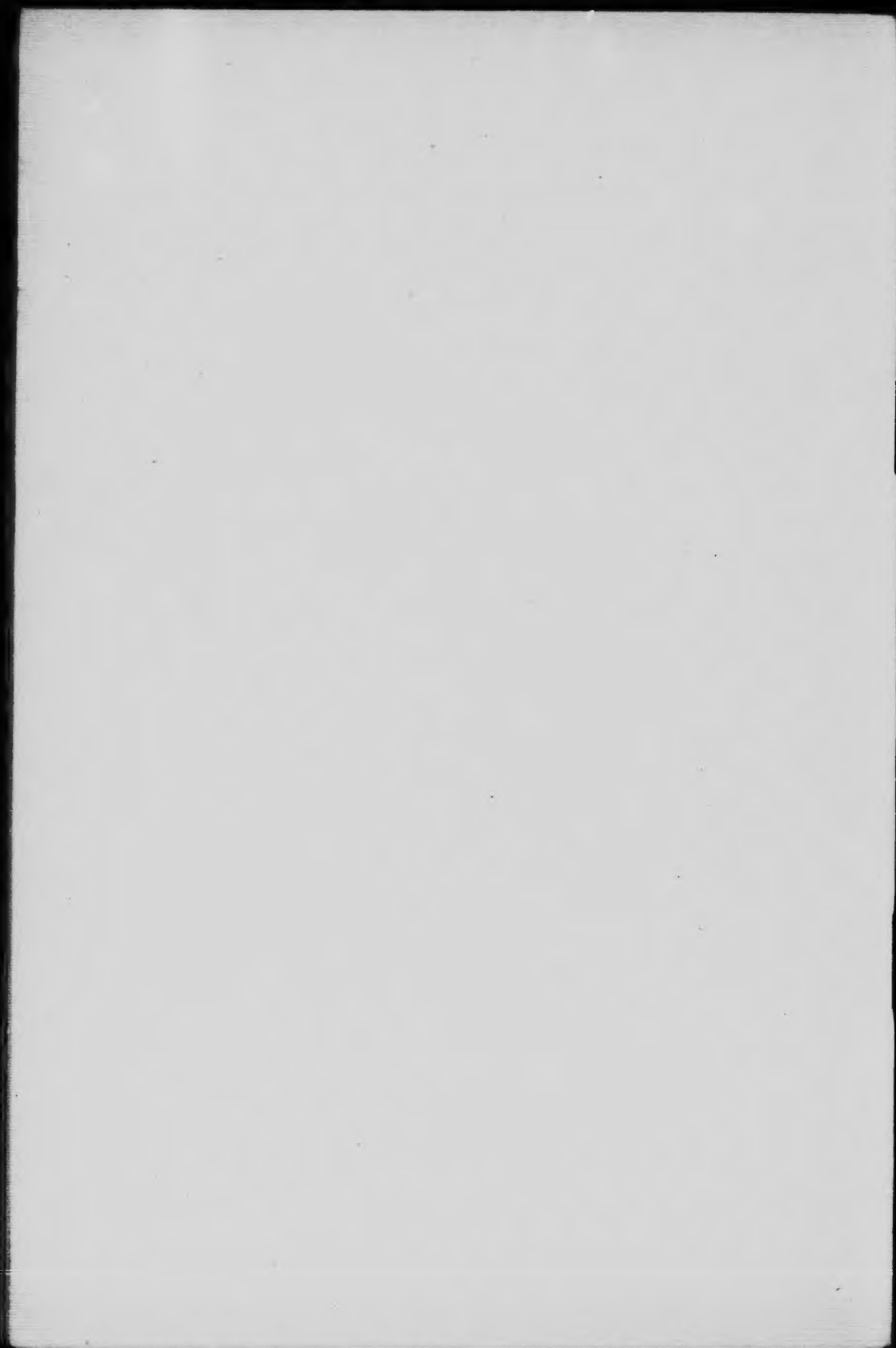
TABLE No. 4.

Showing Quantities of Apples, Bananas and Oranges Imported into the United Kingdom in the Years named.

(Years ended December 31st).

Years.	Apples.	Bananas.	Oranges.
	Cwts. of 112 lbs.	Bunches.	Cwts. of 112 lbs.
1900.....	2,123,541	1,287,442	5,000,380
1901.....	1,830,210	2,228,673	5,281,637
1902.....	2,843,517	2,804,700	6,518,107
1903.....	4,569,546	3,087,516	6,176,782
1904.....	3,771,781	3,910,511	5,853,254
1905.....	3,494,690	5,737,914	5,068,536
1906.....	2,806,732	6,425,704	5,230,911
1907.....	3,520,232	6,232,158	6,120,185
1908.....	3,376,579	6,385,449	5,684,041
1909.....	3,122,646	6,238,065	6,202,370
1910.....	3,242,205	6,094,579	5,400,601
1911.....	3,332,618	6,714,479	5,284,142
1912.....	3,861,947	6,978,807	5,561,719

NOTE.—The importation of bananas and oranges is shown for the reason that these fruits are the chief competitors of the apple in the markets of the United Kingdom and exercise an important influence on the consumptive demand for the latter fruit. It will be noted that in the last nine years while the quantity of apples and oranges imported yearly has varied but little, the quantity of bananas imported has almost doubled.



LIST OF PUBLICATIONS

OF THE

DAIRY AND COLD STORAGE COMMISSIONER'S SERIES.

REPORTS.

Report of the Dairy Commissioner, January, 1905, to March, 1906.

Reports of the Dairy and Cold Storage Commissioners for 1907, 1908, 1909, 1910, 1911 and 1912.

BULLETINS.

Date Issued.	No.	Title.
1905	1	List of Some British Importers of Farm Products.
1905	2	List of Exporters of Some Canadian Products.
1906	3	Some of the Factors that control the Water Content of Butter.
1906	11	The Inspection and Sale Act, Part IX, as amended in 1907-8. (The Fruit Marks Act and Fruit Packages). Revised Edition.
1906	12	Cow Testing Associations, with some Notes on the Sampling and Testing of Milk.
1907	15	Sweet Cream Butter.
1907	14	Apparatus for the Determination of Fat and Water in Butter.
1907	17	Buttermaking on the Farm.
1907	18	The Packing of Apples in Barrels and Bins.
1907	20	The Use of Ice on the Farm.
1909	22	The Cooling of Milk for Cheesemaking.
1910	23	Cold Storage and the Cold Storage Act.
1910	24	Report on Some Trial Shipments of Cold Storage Apples.
1910	25	Concomitant Cheese. Some Notes on its Manufacture.
1910	26	Dairy Legislation.
1911	27	Trial Shipments of Peaches, 1910.
1911	28	The Dairying Industry, an Historical and Descriptive Account.
1911	29	Notes for Factory Cheesemakers.
1911	30	Cream Cheese.
1911	31	A List of the Cheese Factories, Creameries and Condensed Milk Plants in Canada.
1912	32	The Care of Cream for Buttermaking.
1912	33	Co-operation and Fruit Growing.
1912	34	Modern Methods of Packing Apples and Peaches.
1912	35	Small Cold Storages, &c.

CIRCULARS.

1910	1	Good Cheese Care, 1910.
1912	2	The Milk Test Act.
1912	3	The Outlook for Canadian Tomatoes in Great Britain.
1912	4	Good Reasons for Cow Testing.
1912	5	Creamery Cold Storage Manuals.

SPECIAL PUBLICATIONS.

1907	1	Map showing the Location of Cheese Factories and Creameries in Canada.
1911	1	Report of the Third Dominion Conference of Dairy Experts, December 6th and 7th, 1911.
1912	1	Proceedings of the Third Conference of Fruit Growers of the Dominion of Canada, February 14, 1912.
1912	1	Report of a Special Inquiry into the Fruit Growing Conditions in Canada, 1911, by Wm. H. Sauting.

Any of these publications will be sent free of charge on application to the Dairy and Cold Storage Commissioner, Ottawa, Ont.

*A sufficient number of bulletins 20, 22 and 23 will be sent to the manager of any cheese factory or creamery to supply one to each patron.